Accept no imitations – if you own a CPC the only mag you need is...

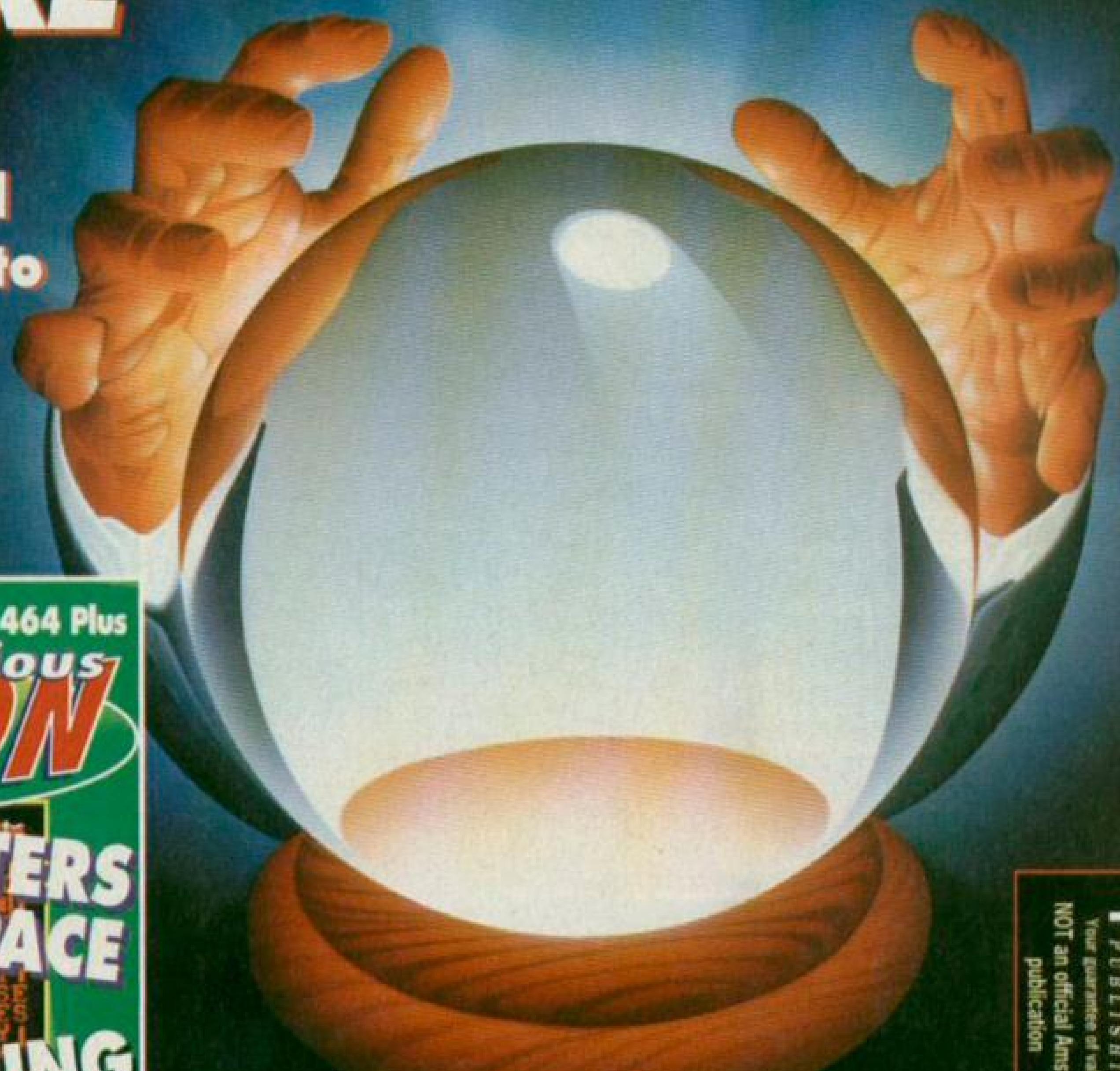
AMSTRAD ACTION

ISSUE No. 114
MARCH 1995
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AMSTRAD ACTION

Line-up

MARCH '95 ISSUE 114



The future is yours!
10 steps to successfully upgrading your CPC

12 Reach for the Future

Is your CPC past its useby date? No! says Richard Wildey. With his advice, a bit of money, some new software and additional hardware you and your CPC could walk into, if not the sunset, then at least the year 2000 together!

WIN a Rom Box and ParaDOS!

18 The last word?



If word processing is your aim then the *BrunWord Elite ROM Mark III* is the name says the *AA* reviewer Angela Cook.

17 All Formats Computer Fair

Looking for CPC goodies? Find them and more at a fair near you this year. Then turn to page 6 for your FREE ticket.

ALL FORMATS
COMPUTER
FAIR

On your covertape...



Ball Bearing

Fast things fast! This game will get your adrenaline and the joystick going!

Masters of Space - The X-levels

A demo shoot-'em up to kill off the gaming opposition and test your extermination techniques to the full.

Columbia

The squeeze is on. Fewer 3-inch discs, hard disc space at a premium? Compress your files with *Columbia*.

Turn to page 5 now!

Regulars

Serious stuff

Leisure zone

AA115 on sale: Thursday, 16 March 1995

Amstrad Action
Future Publishing, 30 Monmouth Street, Bath, Avon BA1 2BW
☎ 01225 442244
Fax 01225 446019
E-mail aa@futurenet.co.uk

NOTE: Please do not ring the office for advice. We can only answer your questions through the pages of the magazine. Please send written enquiries to one of the addresses above.

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ABC 15,168
Member of the Audit Bureau of Circulation
Jul '93 – Jan '94

Amscene directory

PD Libraries

Basic PD
✉ **3 Beacon Lane, Whipton, Exeter, Devon, EX4 8BD**
Cassette-only library. Dealing only in BASIC.

Colrob PD
✉ **9 Aviemore Road, Hemlington, Middlesbrough**
Tape-only PD library.

Demon
✉ **42 Overton Close, Hall Green, Birmingham B28 9NA**
3.5-inch discs available.

GD PD Software
✉ **4 Connaught Avenue, Mutley, Plymouth PL4 7BX**
25p per disc. Free selection form the listings for four or more selections ordered.

Image PD
✉ **Darren Dodds, 15 Elmwood Drive, Ponteland, Newcastle NE20 9QQ**
Also provides a digitising service.

Jamo PD
☎ **01676 533467**
A two-side selection costs the same as one-side.

PD Fun
✉ **Duncan Tissard, Folly Farm, Cold Ashton, Chippenham, Wilts SN14 8JR**
A policy of 'no serious software'.

RSPD
✉ **Robert Sparrow, 40 Dee Court, Hobbayne Road, Hanwell, London W7 3RQ**

Sheepsoft
✉ **298 Holton Road, Barry, South Wales, CF63 4HW ☎ 01446 700730**

Fanzines

Amszine
✉ **Gayton, Laneside Road, New Mills, Nr Stockport SK12 4LU ☎ 01663 744863**

CPC Mania, £1.50
DMP Software
✉ **89 Wolverhampton Road, Codsall, Wolverhampton WV8 1PL**

The Eliminator
✉ **14 Station Road, Riccall, York, North Yorks YO4 6QJ**
Cheques payable to J R Naylor. Or send 50p.

User Groups

UAUG (United Amstrad User Group)
☎ **01329 234291**

WACCI
☎ **01244 534942**

Indie Software Companies

Campursoft
✉ **10 McIntosh Court, Wellpark, Glasgow G31 2HW ☎ 0141 554 4735**
Crystal X Software
✉ **11 Vicarage View, Redditch, Worcs B97 4RF**
Stellar Outpost, £2.99 (tape), £3.99 (disc). Cheques payable to A Swinbourne.

DMP Software
✉ **89 Wolverhampton Road, Codsall, Wolverhampton WV8 1PL**
Send SAE for catalogue.

Pacific Software
✉ **37 Trimingham Drive, Bury, Lancs BL8 1JW**
Technically-minded fanzine.

SD Microsystems
☎ **01953 483750**

Sentinel Software
☎ **0181 876 7032**
STS titles and a few original products.

Siren Software
☎ **0161 7965279**

Hardware

Datel ☎ 01782 744707

Microform (Fax no.) 01772 703131

Romantic Robot ☎ 0181 200 8870

STS
✉ **298 Holton Road, Barry, South Wales CF6 6HW ☎ 01446 700730**

Software suppliers

OJ Software ☎ 01257 421915

Computer Cavern ☎ 01628 891101

STS
✉ **298 Holton Road, Barry, South Wales CF6 6HW ☎ 01446 700730**

Tronics North
☎ **010 6177 253 766**
✉ **PO Box 7419, Garbutt, Queensland, Australia, 4814**
Large supplier of software and CPC bits.

Mail Order

Trading Post ☎ 01952 462135

Trojan ☎ 01554 777993

Wizard Games ☎/fax 01723 376586, ☎ 01723 503299

Upgrades/Repairs

HEC
✉ **47-49 Railway Road, Leigh, Lancs WN7 4AA**
☎ **01942 261866**

Reaction

Write to us at: Reaction, *Amstrad Action*, 30 Monmouth Street, Bath, Avon BA1 2BW or e-mail us at aa@future.net.co.uk putting 'reaction' in the subject line.

A bit of a pig?

Do you know if you can get discs for pig records, farm accounts and VAT for the CPC6128?
Stephen White, Dorset

Erm, well any CPC home accounts package (like *Mini Office* or *Money Manager* – both available from OJ Software ☎ 01257 421915) will help you with your farm accounts. As for 'pig records' there's nothing on the CPC that I know of, but how about Suede with *We Are The Pigs*? ***AA***

Look! No join

I would like to say thank you for saving me money. If it had not been for your magazine, I would have bought a new computer years ago, but after buying *AA* for the past six years my Amstrad and I are inseparable.
Jordon Low, Montrose

Sounds like you should see a doctor. ***AA***

Curriculum Vitae

Name	Deian William Lye
Date of birth	18/7/73
Personal profile	I am a determined worker punctual and reliable. I can learn new skills easily and will always work to the best of my ability in any field.
GCSEs in	English Language Literature Maths Drama Art RE Geography Business Studies Applied Sciences
GCSE A-Levels	English Language Theology Maths
EMPLOYMENT	CH Printing Reprographics Technician Photographic Plate Maker
INTERESTS	Reading, writing, weight training, music, tennis and drawing.

REFERENCES AVAILABLE ON REQUEST

Er, well, we received this CV without any covering letter so we're not sure what Deian's after, but if he sounds like the bloke to fill your vacancy, get in touch with us here and we'll start up the *AA* employment agency. ***AA***

Getting particular?

Instead of the usual mixed bag of stuff in *AA* perhaps each month you could cover one particular area of software.

So one month you would concentrate on, say, platform games, showing the best and worst of them. Cheat mode could be devoted to doing tips for platformers while the Type-ins could return and include some simple platformers. You could also show us how to write platformers in BASIC and Machine Code. There would, of course, be platform games included on the covertape.

The following month you could do a similar thing but covering a type of serious software and how to get best out of it. The third month could covert a different type of game.

I don't know what other readers feel about this, but I think it could work.
Tim Gormley, Devon

It would certainly be a complete change of style. Well, what do the rest of you think? ***AA***

Under construction?

I wondered what happened to the *Zack Construction Set* Simon Forrester reviewed in *AA97*? I haven't been getting *AA* for a while (*why not? – Ed*) and I didn't see if it came out.
Stephen Denison

No *Zack*, an arcade game construction kit, never came out. And considering it was being developed by Quantum Computing, if it had, nobody who ordered a copy would have seen it. Maybe it never existed... Or was never going to exist. Shame, really, because it was a great idea, and similar packages on the C64, like *The Shoot-'Em-Up Construction Kit*, have been very popular. Somehow, *3D Construction Kit* just isn't the same. ***AA***

Obviously a kneed

Please resurrect the *AA* small ads section To many die-hard CPC-ers this is the only way of obtaining software which cannot be obtained for love, money, nor threats of knee-capping.

I understand that it must be a struggle deciding which items must go, but the small ads section was often the answer to my prayers. Please bring it back!
Sapleaf the Elf

Turn the page of this very issue and you'll see the Reader Ads section. And we'll keep on featuring them as long as we continue to get a good response, so write in and let the CPC world know what you've got or what you are after! (If this was the USA we could write: You know it makes cents!) ***AA***

Steven Who?

Spielberg has rescued *Doctor Who*, apparently. Perhaps we can get his new company (the one he formed with David Geffen and Jerry Katzenberg) interested in CPC games?
Pete Hemmersley, Carlisle

Reader ads

If you want CPC-related software or hardware do you know where to start? Here! And if you are having a clear out and want to make space for new items? Ditto! Try it.

WANTED

Amstrad 464 cassette for writing and making music on the CPC. Anyone who has information or a cassette for music write to Thomas Hughes, 2 Sufton Rise, Mordiford, Hereford HRL 4EJ.

Good machine code programmer to help me. If you are interested write to Disk PD, Lower Dexbeer, Dexbeer, Holsworthy, Devon EX22 7LA or ☎ 01288 321348.

One of three printers: Star LC100 (colour), DMP 2000 or Star LC24-10. Will pay up to £90. Steven ☎ 041 641 1179 after 4.30pm Mon-Fri.

Prince of Persia, (disc or tape). Good price paid. Phil ☎ 0161 7209565 after 2pm.

MP-3 TV tuner for CTM644. Up to £40 paid for quality secondhand tuner. Call now and make my day! Neil, ☎ 0131 229 7193.

FOR SALE

Amstrad 6128 games, (discs) from Battle Stations to Licence to Kill and loads more. £4 each. Rob (after 4pm) ☎ 0545 571387.

Amstrad CPC 464 Plus colour monitor, joystick, manual, and 14 games as new, still boxed. £140. ☎ 0970 820220.

AMX Mouse Art Stop Press £25. Light Gun £10. CP/M discs £5. 40 *AAs*. Offers? Eight discs of games £15. Tape games. Darren ☎ 091 3732516

More than 20 *Amstrad Action* covertapes, 10 to 44. Cut-price Lemmings and Turtles. SAE to Donal McBrien, Corrastistune, Derrylin, Enniskillen, Co Fearmanagh, N Ireland, BT92 9EE

Amstrad Computer User Magazines. (Mar '90 - May '92). 30p each plus A4 SAE. Hacker (tape) £3. Rocky Horror (tape) £3. Aliens (US), (tape) £1. Knightmare (tape) £1. Super Hero (tape). £1. Fairlight (tape). £1. SAE to A Swinbourne, 11 Vicarage View, Redditch, Worcs B97 4RF.

CPC464 colour, Multiface II, joysticks, LP1 light pen, *AA* cover tapes (21-34), 43 games, Mini Office 2, Assembler, Vientext, Ansoft Software (3), 6 years ACU/AA mags, blank tapes, original packaging/documentation. £225 ono. ☎ 01420 477560 (Hants)

Complete CPC6128 FDI 3.5-inch, Eproms Programmer Scanner ROMboxes, RS232 ABBA discs, bosses Multiface Lightpen, Ramrom games, Tools, AA+ tapes, MP2 and more. ☎ 0181 519 9423 lists.

Amstrad CPC464 upgraded to CPC6128, colour monitor, keyboard, DK Tronics, 64K Ram Pack, DDI disc drive, and all manuals and leads included, excellent condition. £400 ono. ☎ 0181 903 0669 (days) or ☎ 0181 206 1409 (eves).

Lightpen interface, printer routine and manual £15. Bonzon Blitz £8. OCP Art Studio and manual – £4. ColourDump and manual £4. Alex ☎ 01253 353024.

Large selection of CPC hard- and software. ☎ 01432 275828 (Hereford).

Selling the lot! CPC6128 colour. Also 464 keyboard only. DDI-1, Multiface 2 Lightpen/Gun manuals. AA's and ACU's from April '86. Books, more than 500 games and serious software. £320 ono. (Buyer collects). ☎ 01234 853442 (Bedford).

16 classic games including Ghostbusters 2, Wonderboy and Flimbo's Quest. £25 ono. Caroline ☎ 01222 628208.

Great strategy game, Stellar Outpost. £2.99 tape, £3.99 disc, reviewed in *AA*. SAE for return of cheque (if sold out) to A Swinbourne, 11 Vicarage View, Redditch, Worcs, B97 4RF, ☎ 01527 68419.

Looking for a present? Amstrad CPC464, colour monitor, speech synthesiser, joysticks, Lightpen, loads of magazines, cassette box, 200+ games, packages and utilities. £250 ovno. Ali ☎ 01455 635585.

OTHER

We want your PD software or, for a catalogue, send an SAE to Disk, Lower Dexbeer, Dexbeer, Holsworthy, Devon EX22 7LA . ☎ 01288 321348.

Has anyone got the original Transformer soundware? or any other original Transformers? (1984-1990). Will swap Lemmings, boxed and instructions. Donal McBrien, Corratistune, Derrylin, Co Fermanagh, N Ireland BT92 9EE.

For more bargains and a form see page 6.



Serious ACTION

Variety is the name of the game, well games and a utility. So for your further CPC-ing pleasure Richard Fairhurst is scouring the scene.

BALL BEARING

Radical Software

A bit of a first, this one. Never before has *AA* featured a game from an independent software house on the covertape.

So how does it shape up?

Ball Bearing is a fast, colourful arcade game which bears more than a passing resemblance to



Ball Bearing: a medal if you beat your CPC.

one of the classic PD games of all time... Remember *Croco Magneto*? No, well this was the first commercial-quality PD game to hit the CPC and thousands of CPCers were hooked immediately.

The idea was that a ball was bouncing from side to side, richochetting off walls and such like. You controlled the ball's up and down movement and aimed to hit all 80 points blocks and avoid the instant death blocks.

Now add nine levels, all full of fiendish puzzles and with three skill levels. Replace sudden death with three lives (we're talking serious gaming here), and a host of special blocks which make your ball slower, invincible for a time, or reverse its controls, or... Well, it would spoil the fun to reveal them all. Finally, add some beautiful graphics while making each level scroll, rather than flick between screens. That's *Ball Bearing*.

You can control *Ball Bearing* by keyboard or joystick. There's a hi-score table, and if you can get to the top of it, you deserve a medal.

MASTERS OF SPACE – THE X-LEVELS

Radical Software

For something a bit more mindless, here's a demo version of Radical's new shoot-'em-up, *Masters of Space*.

We have given you three short levels taken from, arguably, the ultimate blasting experience (blimey, that sounds like a BMW advert).



Masters of Space: look out for level three.

Levels one and two are quite easy, but when you get to level three it starts getting tricky. Fortunately, you have the most destructive power-ups known to alienkind.

It's a good thing they are so potent, though, because when one appears, you can't fire until you have picked it up. (Look for the arrow on the left-hand side of the screen to show you where on the level the power-up is.)

You can waste some alien scum with your keyboard or a joystick. You can exterminate lots more of it by getting hold of the full version direct from Radical Software (see blob, above).

Masters of Space, £9.95 disc-only
Radical Software, Brympton Cottage, Brunswick Road, Worthing, West Sussex BN11 3NQ ☎ 01903 206739.

COLUMBIA

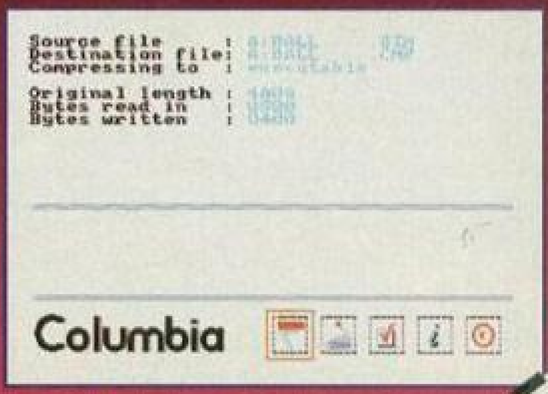
Robot PD

With 3-inch discs getting scarcer and scarcer, and correspondingly more expensive, and with the questionable quality of some discs, disc space on your existing discs must be at a premium...

This month's serious offering, *Columbia*, addresses this by compressing files to contain all their original contents, while taking up much less disc space. (This means savings of up to 50%.)

There are full instructions in the '*Columbia* helpfile' on the tape,as well as two versions of the main program: one for tape users and one for disc users.

There is even machine code source for any hackers out there. All options are menu-driven, but I recommend that you have a look at the instructions first. They give some useful hints on how you can get the most out of *Columbia*.



A useful compression program.

LOADING THE TAPE

Insert side A into your tape deck, type |TAPE if you have a disc drive attached to your system, and then type RUN". The menu loads, and from it you can load any of this month's programs or even transfer the entire covertape to disc. To do the latter you need to put a blank data-formatted disc into the drive.

Alternatively, our duplicators, Ablex, will send you a disc version for £2.

Send a cheque or postal order, made payable to Ablex Audio Video, with your name and address, plus the token from this page, to AA114 Disc Offer, Ablex Audio Video, Harcourt, Halesfield 14, Telford, Shropshire TF7 4QR.

This is also the place to send covertapes which come up with read errors. Enclose an SAE and a note describing your CPC setup and the problem you're having. However, if your covertape loads correctly but doesn't function as you'd expect, write to: Covertape Clinic, Techy Forum, Amstrad Action, 30 Monmouth Street, Bath, Avon BA1 2BW or aa@futurenet.co.uk putting 'Techy Forum' in the subject line. The editorial office can only answer written requests for help or information through the pages of the magazine. Chances are, though, that if you have had a problem others will, too, so we'll be covering it sooner of later. Keep reading...

DISK 114 TOKEN

What's happening...

FAIR'S FARE AND FREE WITH AA!

For CPC bargains try an All Formats Computer Fair. You'll find cut-price goodies – both second-hand and new.

The Fairs take place all over the UK and, in fact, they're jam-packed with every sort of computer hardware and software for 8-bit machines to the latest CD-ROM technology. See inveterate bargain hunter Angela Cook's report on page 17.

You can get in for free! Just cut out the coupon below (photocopies are not acceptable) and hand it in at the door at the Fair of your choice. Dates are on the ticket. Good luck and have fun!

ALL FORMATS COMPUTER FAIR – FREE TICKET WORTH £4

MARCH
11 North East Northumbria Centre, Washington, Dist 12
12 Scotland Woodside Hall, St George's X, Glasgow
18 North West Haydock Park Racecourse, J23, M
19 Midlands NAC (Royal Showground), Stoneleigh
25 Essex Courage Hall, Brentwood, J28, M25
26 London Tolworth Recreation Centre, A3, Surbiton

APRIL
1 North East Northumbria Centre, Washington, Dist 12
2 Scotland Woodside Hall, St George's X, Glasgow
8 North West Haydock Park Racecourse, J23, M6
15 Worksop Bassetlaw Centre, Eastgate
16 Midlands National Motorcycle Museum, J6, M42
23 London Tolworth Recreation Centre, A3, Surbiton

MAY
6 North East Northumbria Centre, Washington, Dist 12
7 Scotland Woodside Hall, St George's X, Glasgow
14 Midlands NAC (Royal Showground), Stoneleigh
21 London Tolworth Recreation Centre, A3, Surbiton
27 Worksop Bassetlaw Centre, Eastgate
28 Midlands National Motorcycle Museum, J6, M42

Conditions:
One ticket per person. Photocopies not accepted. Normal admission £4 adult, £2 children, £2 for all after 2pm. Wheelchair users free admission.

ALL FORMATS COMPUTER FAIRS LIMITED
All Fairs 10am-4pm   Redemption value 0.00001p

Revival of the fittest

Remedy those annoying Disc Missing error messages yourself with the new 3-inch Drive Reviver Kit from SD Microsystems. The package includes a replacement drive belt, fitting instructions and cleaning fluid. The Kit costs £9.95.
SD Microsystems, PO Box 24, Attleborough, Norfolk NR17 1HL ☎/fax 01953 483750.

Printers to dye for?

SD Microsystems (see above) are now supplying a colour printer drive for *Tasword* and a special colour version of their *Super Labeller* program. All printer packages come with a suitable printer cable – please state which type you need when ordering.

Conventional? WACCI?

WACCI is planning a convention in September at the Bescot Stadium, Walsall. Peter Cambell from Campursoft is a likely visitor as are Sentinel Software and Brian Watson's 8-bit Mart. Invites have gone out to major manufacturers of CPC-related products and UAUG (United Amstrad User Group).
Angie ☎ 01922 476293 or WACCI Editor Paul Dwerryhouse ☎ 01244 534942.

Get on track

RoutePlanner is now available! Reviewed in *AA*108, ('the bottom line is, IT WORKS' – Dave Golder) costs £19.95 incl p&p on 3-inch disc.
OJ Software, 273 Mossy Lea Road, Wrightington, Nr Wigan, Lancs WN6 9RN ☎ 01257 421915.

Continued from page 4.

Reader ads

New fanzine Want to air your views? Will publish your opinions, articles, funny stories, etc, free of charge, best article wins a fiver. Hoping to print monthly 30-35 page fanzine together with covertape. After Dark, 41 Westmoreland Avenue, Newbiggin-by-the-Sea, Northumberland NE64 6RN ☎ 01670 855486.

80,000 word Prospell-compatible dictionary, spans three disc sides. Send two blank 3-inch discs, SAE and £1 to M Ruegg, 8 The Horse Park, Carrickfergus, Co Antrim BT38 7ED.

Tuck PD – we are still going! SAE to Matthew Tuck, 7 Carr Field, Eland Haugh, Ponteland, Newcastle-upon-Tyne NE20 9XR.

Amstrad Users Club contact us. Also games to sell, more than 500 top titles from £1.50. PO Box 8328, Athens 10010, Greece.

WACCI the UK's biggest and best serious CPC club. Send a 29p stamp to WACCI, 7 Brunswood Green, Hawarden, Deeside, Clywd CH5 3JA.

Don't worry, we don't mean to make you eat frogs or snails, but just to swap PD software. If you trust us write to Jeau Jacques Berly, 5 Rue du Clos Moise, Jonquieres, France, 60680.

Do you have anything for sale, but need more than a couple of lines to get the message across? Do you have something to say but can't get it into print either because no-one finds it interesting enough or because you're finding the publishing costs a little out of your league? I am putting together a fanzine and would like to see what you have to say. I am offering the choice of one line or one full page *free*, Yes *free*!! Don't just sit there – do something. What have you got to lose? Best article every month gets a fiver!! Art work, type-ins, reviews, poems, cheats, tips, sales, wanted, pen pals, questions, proggy probs, demos, jokes, user groups, silly stories, cartoons, library mentions, fanzine mentions, etc... Young or old, if you have something you'd like to see in print, do something about it. If enough interest is generated I hope to put a monthly 30-35 page 'zine' together, possibly with the added bonus of a covertape! After Dark, 41 Westmoreland Avenue, Newbiggin-by-the-Sea, Northumberland NE64 6RN ☎ 01670 855486.

Still not satisfied?

If you can't find what you want to buy here why not try an All Format Computer Fair? *Amstrad Action* can make doing so even easier. In fact, by clipping out the ticket above you can go *free*. What is an All Format Computer Fair? *AA* reporter Angela Cook visited one recently. You can find out what she found and why she recommends them on page 17.

AMSTRAD ACTION FREE READER AD FORM

Want some software? Want to get rid of something? You're in the right place. Fill in the details in the box below – one word to one box – and send it to: Reader Ads, *Amstrad Action*, 30 Monmouth Street, Bath Avon BA1 2BW.

Your name

Your address

Post code

Public IMAGE

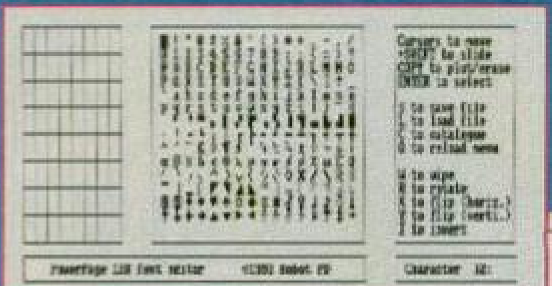
Keith Woods reviews an oldie but goodie, one held to be 'the best' and one which, to be honest, could do better.

PowerPage 128 v1.2

By Richard Fairhurst

Powerpage has long been regarded as by far the most excellent DTP package available for your CPC and for a number of reasons...

- The price, or rather lack of it. *PowerPage* is available as PD ('almost PD' that is), despite being as good as, if not better than, most commercial desktop publishing packages.
- The wealth of features it offers. There are advanced text and graphics handling options, which are most important in a DTP package, as well as more extra features then you are ever likely to use. For example, mode 1 to 2 file converters, a review option and a graphic design utility.
- The ease of use. The term 'fast and friendly' is so often used by program authors that it has become a cliché, but in this case it is true. The whole program is controlled via a series of drop-down (or rather drop-up in this case) menus which even a five-year-old could understand. The menu bar only takes up the bottom line of the screen and a simple and unobtrusive cursor moves you around the rest of your workspace. The necessary keypresses are well thought-out and full instructions are included.

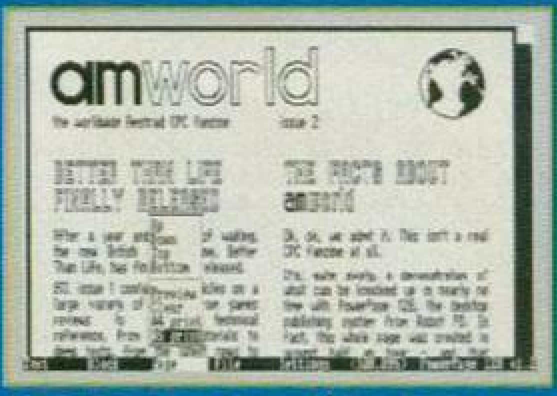




This all means that the only DTP package ever likely to supersede *PowerPage* is *PowerPage* itself, which is where the new version, 1.2, comes in.

Admittedly, there is little visible change between this and earlier versions, which isn't surprising given the level earlier versions had reached. Any changes which have been made are largely cosmetic, such as an increase in speed (especially in zooming) and making some of the tasks a little easier to perform. Therefore, it wouldn't be worthwhile for existing users to shell out any extra cash for the new version, which is okay, as Robot PD are offering version 1.2 free to existing owners anyway.

PowerPage does have its faults. For example, auto text runaround upon importing clip art would be nice (hint, hint), and importing text is unnecessarily hard work. However, when compared with the opposition it's in a class of its own, as the use made of it by various CPC fanzines proves. As long as they can ignore the off-putting ego trip buried in the instructions, budding DTPers need look no further.



PowerPage: more power to your pages.

88%

You can honestly describe PowerPage as both 'fast and friendly'.

Where to go

PowerPage 128 v 1.2 is only available from Robot PD, 2 Trent Road, Oakham, Rutland LE15 6HF. Price £2.25. This includes the disc, but excludes p&p so enclose an SAE when ordering.

Spaced Invaders

By David Hall

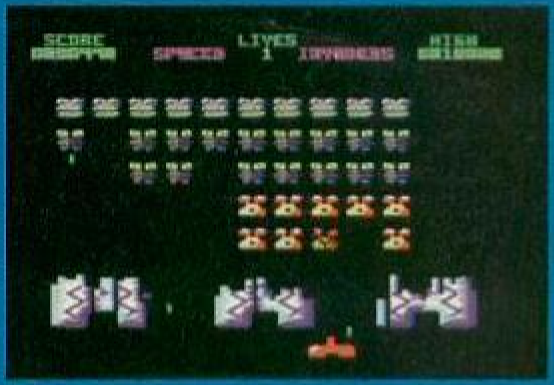
Oh no, here we go again. Why, oh why, oh why do people keep sending us further poor versions of *Space Invaders* when we've already reviewed some far better ones, such as Alien Attack (*AA102*)? I hope you know, because we sure don't.

This one is disappointing because it comes from such a good programmer.

Spaced Invaders may look all there in the screenshots – it's got legions of bad guys at the top, the good guy at the bottom and the barriers in between – but it's not.



Right: it's disappointing.



Spaced Invaders: this game is s-l-o-w!

Despite the colour, what the screenshots don't tell you is that this game is *slow*. So slow, in fact, that it makes John Major look athletic. And when *Space Invaders* loses its speed, it loses its gameplay: the most important part in any game.

Sorry David, better luck next time around.

45%

Tetrix vs Alinka

Tetrix by Thomas Alber
Alinka by Eric Boucher

The PD is absolutely full of pointless *Tetris* games that are hardly worth mentioning. These two, however, are getting a brief mention for being a little better than the usual dross.

You all know far too well what *Tetris* is all about, blocks of various shapes falling from the top of the screen which you fit together to form lines... Both *Tetrix* and *Alinka* are very well programmed versions of this game, but both have different strengths.





'You blocks, you stones...'

Tetrix' strength lies in its excellent two-player mode and wealth of features like the pre-prepared barriers in later levels. While *Alinka* lacks these features, it makes up for it by being faster and smoother.

These games may be good , but they still don't topple Facehugger's excellent *Power Tetris*, which, for my money at least (about 2p), is the King of the million PD *Tetris* clones.

Tetrix **82%**

Alinka **70%**

BrunWord

Mark 3 Elite ROM £79

The BrunWord Elite Mark 3 ROM module is identical in appearance to the Mark 2 ROM but hidden within is a huge chip with 512K of memory. It is equivalent to having 32 individual ROMs plugged into 5 ROM boxes. The Mark 3 ROM has all the features of the Mark 2 and a number of exciting additions.

It's all in the Memory

The one big problem with programming on the CPC has always been the lack of memory. When Info-Script (our database) was added to BrunWord in 1988 it took over the memory used by the spelling checker, meaning that *either* the spelling checker or the database could be loaded with BrunWord.

When BrunWord Elite was released on disc in late 1989 it was supplied with seven 24 pin fonts, the current font being loaded from disc each time it was changed in the text. Then Headline (our 9 pin print enhancer) was released in mid 1990 which again competed for the spelling checker's memory. With the disc based system (now obsolete), the spelling checker, the database, Headline and the fonts were each loaded from disc, as they were needed.

In October 1991 we released the first BrunWord Elite ROM module and it was fitted with the largest ROM chip available. It had 256K bytes of memory which allowed all the programmes and fonts to be used with no disc delays.

The next year in June 1992 the Mark 2 BrunWord Elite ROM was released taking the ROM idea to its ultimate limit. Not only is the spelling checker there all the time, it actually operates while you are typing.

Intelligent Script

Improving on the Mark 2 ROM was difficult, but large ROM prices have recently fallen. A simple printer with a brilliant font prints infinitely better than an expensive printer with the wrong font! So, we set about designing a new concept in fonts.

A script font joins characters together to give the appearance of neat handwriting, but some characters such as o a d g c require different linking depending on their position. We have designed a series of fonts and modified the driving programme so that these characters are changed as necessary to achieve a really good flow to the lines of text.

The Mark 3 ROM has a total of 23 fonts programmed into it, including four intelligent script fonts, a new series of modern over square fonts, smaller versions of the popular CHELMER and CLACTON fonts, and a set of large fonts for designing posters. Add to these a number of minor improvements, and the Mark 3 ROM is fantastic value for money.

Mark 2 Elite ROM £63

The BrunWord Elite Mark 2 ROM module has 256K of memory permanently loaded with programmes and data. Word processor, spelling checker, 33,000 word dictionary, relational database, 9 pin print enhancer, 24 pin 'type setting' routines, 10 superb fonts, high speed screen dump and box drawing routines for 9 and 24 pin printers, and a powerful encryption system, all programmed into one high capacity ROM. The ROM is so fast that it checks the spelling of each word while you are typing and the price includes our 8 bit printer status port. No ROM box is needed.

Spelling Checker

BrunSpell is a real time spelling checker meaning that it actually checks the accuracy while you are typing. The computer will 'beep' at each error. This inspires accurate typing and spelling, and it is so much easier to correct the error while the cursor is sitting on the word. Press F3 after a beep, ask for help, move down to the correct word and let the programme make the changes. BrunSpell can also be used in the conventional way and it checks at the unbelievable speed of 4,000 words per minute. The dictionary is an up to date English reference, with no American spellings.

Info-Script

Info-Script, the relational database, is fully integrated into both the Mark 2 and the Mark 3 BrunWord Elite ROM modules. When data is merged into a pattern the resulting letter, invoice or whatever, is constructed in the word processor and can be edited, spell checked and printed just like any other text.

Info-Script is very simple to use ***and*** can be used immediately with no setting up. Even with 1000 names and addresses loaded into memory for instant reference, you can type a 10 page document in the word processor and your spelling will still be checked while you are typing.

Info-Script stores records in random order and sorts as it uses the data. This means that the selected records can be sorted alphabetically, numerically or by date, using any field, and changed as often as you wish, with no delay.

BrunWord PC £55

The ideal word processor for CPC upgraders. Simple to use and so very fast. Includes most of the features of the Elite ROM module and has many new features. With YDISC (£10 extra) it can directly read 3.5 inch CPC discs with high capacity D1 or D2 format and ordinary data or system 3.5 inch discs. Ask for free 16 page booklet.

Quotes

"It's totally brilliant...."
Chris Knight (ACU Editor) - ACU Aug 1991.

"....uncomplicated and easy to use....just sit down and start typing....The BrunWord ROM is a truly excellent product."
Rod Lawton (AA Editor) - AA Sept 1992.

ROM Module Order Form



Please complete this form (or write on a sheet of paper) and send it with your cheque or PO to Brunning Software, 138 The Street, Little Clacton, Essex, CO16 9LS.

Please supply:-

BrunWord Elite Mk 3 ROM Module & Printer Port. . . . £79.00 ......

BrunWord Elite Mk 2 ROM Module & Printer Port. . . . £63.00 ......

2nd User BW Elite Mk 2 ROM Module & Printer Port. . . £49.00 ......

CPC464 version add £10...... 6128 Plus version add £15......

UK Postage and Packing. . . . . . £ 3.00

ROMDOS (no charge)...... Cheque/PO enclosed for £............

2nd user Mark 2 ROMs will become available as customers upgrade to Mark 3. Each will be rigorously tested before being re-sold, and carries a 6 month guarantee.

Name..

Address...

....

....

....

Postcode......................

Signed.. Date...............

Our programmes can only be obtained directly from us.

Send cheque or postal order to:-

Brunning Software

138 The Street, Little Clacton,
Clacton-on-sea, Essex, CO16 9LS.
Telephone 0255 862308



We have cancelled our credit card facilities due to an increase in charges. If possible, telephone first to reserve your ROM. Your order will be processed as soon as your cheque arrives and despatch is usually the same day.

BrunWord Elite Mk 3 ROM & Printer Port. . . £79.00
BrunWord Elite Mk 2 ROM & Printer Port. . . £63.00
BrunWord 6128 (disc) with BrunSpell. £30.00

****** Please state CPC6128 or 6128 Plus ******

UK postage add £3 : Europe add £5 : Rest add £7



Further reading

David Crookes presents an award for best-designed 'zine of 1995 (yes already!) and offers a panacea for CPC-related ills.

News

Only one snippet this month... WACCI are offering a literally lip-smacking offer of three issues of their mag, *WACCI*, for only £3.

Make those cheques payable to WACCI and send them to WACCI, 7 Brunswood Green, Hawarden, Deeside, Clywd CH5 3JA

Potential Difference

PRICE: £1
EDITOR: Christopher Lauri Goodswen
ADDRESS: 47 All Saint's Drive, North Wootton, Kings Lynn, Norfolk PE30 3RX

REVIEW

I have a question... Two excellent non-serious magazines have graced, or are continuing to grace, the underworld of CPC publications: *Artificial Intelligence* and *Potential Difference.*



One of the best games 'zines.

They have two things in common. Both magazines really are:

- very funny and well-written; and
- even though they both are (or were, in the case of *Artificial Intelligence,*) bi-monthly they only come out once in every blue moon.

So my question is: why do we have to wait so long for the best indie 'zines?

The answer must, therefore, be that the editors are lazy but that's a shame.

Potential Difference is the best games 'zine around. This publication continues where *Artificial Intelligence* left off, which is cause for joyous celebration. Now, if only they could get their publishing act together...

It's not just the scribblings that make it good but the layout of the tab it's on. I hereby award *Potential Difference* the 1995 award for design.

Look at the texture and the pictures that just scream at you, grabbing you by the throat and not letting go until you say 'please'. You can paint a thousand words in a picture, even using clip art and a few carefully-placed pixels. I have long yearned for a 'zine with flair and readability and now I think I have found it.

It is refreshingly sweet to see a 'zine with a layout that is at least similar on each page. It is even more satisfying to read an absolute abundance of great features.

Here's a rundown of what's in what was the most recent (!!) issue, as *Amstrad Action* went to press in February, anyway. The July 1994 issue contained: reviews, a top-notch interview with Rob Buckley, news, demos and a spot of Jean Michel Jarre (which I think is quite sad really, but each to his or her own).

The issue is dated as July but it was delayed and didn't come out until much later which means the next issue will be even late, ad infinitum.

However, I could sum up the magazine in one mighty word: excellent. But, if I were allowed to choose a second adjective, I would point out that it is cheap. And if the current schedule is anything to go by, take out a six-issue subscription – it'll last you for life!

Content: 88%
Appearance: 89%
Overall: 89%

The Beginners Guide

PRICE: PD (free)
EDITOR: Joe Moulding
ADDRESS: 9 Meeting House Lane, Balsall Common, Nr Coventry, West Midlands CV7 7FX

PREVIEW

New to computers? Suffering sleepless nights? Headaches? Nervous tension? Take a dose of the *Guide* as soon as you set up your CPC and let it take you on a journey through all of the scene's areas from public domain to fanzines to starting with BASIC. You'll soon understand what's what.

The Beginners Guide is not a comprehensive guide to using your CPC. It doesn't give extensive coverage to the finer points of actual computing yet – but, hey!, this is only a preview. What it does do is inform you of the best items available for your computer and describes certain nooks and crannies that you may wish to explore.



The Beginners Guide: stress-free CPC use.

However, when *The Beginners Guide* is finally released it will have a jargon appendix and a full explanation of the Amstrad computer – surely of great assistance to newcomers.

The Beginners Guide looks quite good. There is obviously room for improvement but there is time for that and, in fact, Joe has mentioned that there is a list of additions to be made and these include a lot in the way of design such as different ink palettes and a proper menu with graphics and music.

The articles themselves are well written in a non-condescending style. I am positive that *The Beginners Guide* is going to be something special and well worth getting hold of.

Look for a full version from March. Try your local PD library, or if you get stuck, Joe direct.

What is a fanzine?

Fanzines originated from the need to be heard. Ruffled by the establishment, people hit back by printing their own views on certain issues. The printed word has long been thought of as authoritative and to 'get into print' seems a more forceful means of being seen to be heard.

Fanzines are home-produced magazines which are not part of a large publishing company. The publications owned by a large concern all have the same overheads. In fact, fanzine production is more costly than magazine publishing because fanzines don't sell as many copies on the newstands so, therefore, economies of scale aren't applicable.

'Zines became more popular due to football. Not content with the bland drivel that the official football programmes were delivering, fans took it upon themselves to grab a few mates, some glue, pens and paper and organise access to a photocopier to produce an alternative outlet. Football fanzines are full of opinions and ego trips and are often very, very funny.

The CPC fanzine revolution took place only recently. A combination of the cheap DTP package, *Powerpage*, and the fall in the number of newstand CPC magazines meant people were ready to offer their own productions. Adam Peter's fanzine special in *AA* a couple of years back helped things along as well.

Amstrad 'zines vary considerably. There are specialised ones dealing with purely serious items and a few all-rounders. Disczines have become popular, especially on the continent, because, as no photocopying is involved they are cheaper to produce.

Independent productions are definitely here to stay, especially with the CPC. Even your favourite CPC magazine *Amstrad Action* may one day disappear and should that happen fanzines will surely attempt to fill the massive gap that would leave.

Basically basic

Strapping on big backpacks and donning their muddiest DM's that ever intrepid *AA* duo Rob Buckley and Angela Cook jump, feet first, into our tutorial on adventuring.

BASIC may not be the ideal way of writing superfast arcade games, but when it comes to adventures, speed is not important. BASIC can produce effects as good as those in commercial games.

Adventures are, after all, just text. But the kind of text in which the author leads the player on a set path which builds up into a story: the best adventures being the best yarn not the best programming. The listing given is a very simple adventure and not really a game in its own right, but the start which can be added to and refined. All the major pieces of code required are here and others, such as inventory, are quite easy to add. These are a few of the routines and how to use them...

There is a printing routine at line 9000 which prints an entire sentence, separating it into words and checking that it doesn't overspill the line. If a word does cross the end of the line it automatically shifts to the next. This routine works on the contents of A$, and anything to be printed has to be copied to A$ first using the standard A$=LOC$(3). You use the same routine to check sentences and store them as separate words into an array CM$(), which you need when you enter a sentence. To use this instead of printing you make the variable GETWORDS equal 1, and 0, to turn it back.

Now that you can communicate with the CPC you need something to say. You do this using both numeric and string arrays. For instance all text adventure have locations, which are normally pieces of text which describe an area. Other arrays are those for Objects.

Objects are the things which are manipulated during a game, and from where most of the puzzles are derived, for example, how to open a door. Like the real world, objects can have many characteristics, and adventures seek to mimic these in a realistic way.

Some games are very advanced and try to give objects all sorts of built-in features like weight, size and eatability, but which for the sake of simplicity were going to make your object either takable or not. For this reason you need a number of arrays just to cope with objects.

OBS() – Object name, for example, "TEAPOT".
OXS() – Detailed description, for example, "Gold coloured teapot".
OB() – Object location. This is normally the location number the object is in or 100 if held by the player.
OT() – Object takability, 1 being takable and 0 unliftable.

In line 110 there is a list of commands each followed by a number. A list of words such "look at %o" is used to capture the user input "LOOK AT DOOR". The %o is used when a variable object name is expected. The number represents the command value, as some verbs have different wording but mean the same like "PUT ON HAT" or "WEAR HAT". These could be given the same command value.

When a user inputs a line, the program between 1000-1290 checks the wording fits within the syntax of the command list. If it does it jumps to 1500 – the home of the variable COMMAND and OBJ (if necessary). Now all you have to do is check for your situation. Look at the listing between 1500 and 1990 and work out what each line does. After a while adding new lines and puzzles becomes easy, especially if you define specialist variables such as DOOR, SMASHWINDOW or EATENHEDGEHOG.

Next month:

In a pathetically commercial act, next month's article is a basic Cindy Crawford simulator which appears in pop-up format (*or what about featuring Hugh Grant? – Angela*).

What a plot you've got!

And here it is. But first apologies... You could be charitable and blame the 'spacey' presentation on the influence of cosmic activities (*or alternatively, the 'vacuous' mind of the Production editor- Ed!*). Back to our usual straitlaced format next month!

```
5 DIM CM$(20):MODE 1
10 L$(1)="In a small farmhouse, with a cosy
fireplace"
20 L$(2)="out in the garden, the sun beating
down"
40 ob$(1)="door":ox$(1)="a big door which
belongs to a farmhouse":ob(1)=1:ot(1)=0
50 ob$(2)="teapot":ox$(2)="a teapot of normal
disposition and size":ob(2)=1:ot(2)=1
100 numofverbs=9:RESTORE
110:for f=1 to numofverbs:read
verb$(f),verb(f):Next
110 DATA examine %o,1,ltake %o,2,look at
%o,1,look,3,drop %o,4,open
%o,5, close %o,6,in,7,out,8
200 loc=1:numofobj=2:gosub 2000
1000 er=0:for f=1 to 10:cm$(f)="":next:line
input"What now":cm$
1010  getwords=1:a$=cm$:gosub
9000:words=w:getwords=0:q=0:if  words=0
then 1000
1020 for f=1 to numofverbs:if
cm$(q)=upper$(MID$(verb$(f),1,IEN(cm$))))then
1100
1030 next f:a$="I didn't get that":gosub
9000:goto 1000
1100 e$=mid$(verb$(f),LEN(cm$(q))+2,255):q1=q
1110 q=q+1:a=instr(e$," "):if a=0 then a=254
1120 d$=mid$(e$,1,a-1):e$=mid$(e$,a+1,255):if
d$="%o"then  gosub 1200:
if er=1 then 1000 else 1140
1130 if upper$(D$)<>CM$8Q)THEN Q=Q1:GOTO 1030
1140 IF E$=""THEN 1500 ELSE 1110
1200 OBJ=0:FOR G=1 TO numofobj:if
cm$(q)=upper$(ob$(g))then obj=g:if
ob(g)<>loc and ob(g)<>100 then a$="I can't
see  the "+cm$(g)+"
here":gosub 9000:er=1
1210 next:if obj=0 then a$=I don't get
"+cm$(q)+"!":gosub 9000:er=1
1220 return
1500 command=verb(f)
1510 if command=3 then gosub 2000:goto 1000
1520 if command=1 then a$="You find
"+ox$(obj):gosub 9000:goto 1000
1530 if command=4 and ob(obj)=100 then
a$="You drop the
"+ob$(obj):gosub 9000:goto 1000
1540 if command=2 and ot(obj)=1 and ot(obj)=1
and ob(obj)=loc then
ob(obj)=100:a$="You take the
"+obb$(onj):gosub 9000:goto 1000
1550 if command=5 and door=0 then
door=1:a$="You pull on the door and
it squeaks open":gosub 9000:goto 1000
1560 if command=6 and door=1 then
door=0:a$="You close the door":gosub
9000:goto 1000
1570 if command=8 and loc=1 and door=1 then
loc=2:ob(1)=2:gosub
2000:goto 1000
1580 if command=7 and loc=2 and door=1 then
loc=1:ob(1)=2:gosub
2000:goto 1000
1990 a$="You can't do that yet!":gosub
9000:goto 1000
2000 REM *** LOOK ***
2010 a$="You are "+l$(loc):gosub 9000
2020 a$="You see a ":for f=1 to numofobj:if
ob(f)=loc then a$=a$
obs(f),",a"
2030 next:if len(a$)<>10 then
a$=mid$(a$,1,LHX(a$; 3):gosub 9000
2090 return
9000 x=1:f=1:w=0:a$=a$+"."
9010 c$=mid$(a$,f,1):if c$="" then
print:return
9020 b$=b$+c$:f=f+1:if c$=","or c$="." then
9040
9030 9010
9040 if len(b$)<2 then b$="":goto 9010
9052 if getwords=1 then
cm$(w)=upper$(MID$(b$,1,len(b$)
1)):w=w:1:b$="":goto 9010
9053 if x+len(b$)>40 then print:x=1
9055 locate x,25:? b$:x=x+len(b$):b$="":goto
9010
```

On the run

Check the program is correct using TypeChecker. See *AA113*, page 17.

REACH FOR



Can the CPC hold its own with today's computers? Richard Wildey says it can and tells you how...

When the CPC was released more than ten years ago to a star-studded audience of namesakes such as Einstein and Shakespeare, the Amstrad was the best there was. But what is the situation today? Well, strap on a few bits of hardware, add some decent software and you are looking at a machine that will last for a good few more years.

What hardware?

You need a 128K, preferably a 6128. Which means 664/464 owners should get a 64K RAM PACK and a 6128 ROM chip to replace the original. To get Locomotive BASIC V1.2 and the extra firmware calls to go with it replace the Amstrad 40009 chip (Amstrad 40022 on the 664) inside your computer with the 6128 chip number 40025.

On early machines the relevant chip was placed in a ROM socket and you can gently prise it out with a screwdriver. If, however, the chip is soldered to the board desoldering is not a risk worth taking

Strap on some decent software and you are looking at a machine that will last for a good few more years

unless you are confident of your soldering skills. As second-hand CPCs are so expensive at present it makes sense to get a new machine for a little more money. If you own a 464 Plus you have this chip.

However, even as the owner of a 464 Plus you can't say you have a computer to take you to the next millennium. Tapes are slow and unreliable and Alan Sugar decided would be best. The ultimate CPC needs a 3.5-inch disc drive if you are to have an ounce of compatibility with the outside world.

Siren sell a 3.5-inch disc drive as an A: drive for the 464, however, like all the Siren drives it doesn't come with a side switch. Having a side switch on your disc drive gives you the best of both worlds. You can have two sides formatted to 178K as standard AmsDOS format or using an extended operating system to give you a massive 800K side.

Which software?

Which operating system should you choose to take full advantage of the 800K capacity of a 3.5-inch disc? Such an operating system can only be used to full effect on ROM which requires a Romboard. Most Romboards have six or eight slots, though Campursoft are releasing a 15-slot beast of a Romboard, look out for a review in *AA* soon.

With your new disc operating system in place you still have a minimum of five slots to fill – I'm sure you can find some decent software to use the space. There are many operating systems on the market to choose from. I've always preached the excellence of RomDOS but now ParaDOS has got a Campursoft behind it, and instructions by STS, it seems more appealing than ever.

Yes, I've been converted, ParaDOS is the one for me. Parados gives you all the advantages of RomDOS and MS800 in one operating system on ROM along with a few nice disc utilities including a file copier which copies across different formats with ease. In fact ParaDOS can handle 22 different formats. Issuing the RSX to induce the ParaDOS disc utility brings up a program reminiscent of X-tree on the PC which allows you to copy, erase, format, unerase and change the attributes of any file or multiple files by a process of tagging. ParaDOS also enables 'software side-switching' which means that without a physical side switch you can read and write to the second side of a 3.5-inch disc – useful if you have a Siren drive.

PC compatibility

it in good PD libraries. Shareware means, that, if you like the program and use it, you send the author an agreed amount (small) of money.

Such software means you can now copy files to and from the Apple Macs and PCs you may be using at work or college. This is most advantageous with text files. With the PC version of *Protext* you can convert files to and from the CPC version of *Protext* and keep all your control codes in tact.

The PC version of *BrunWord*, however, imports CPC files without the need for an intermediary copier as *Y-Disc*. An extra for PC *BrunW*



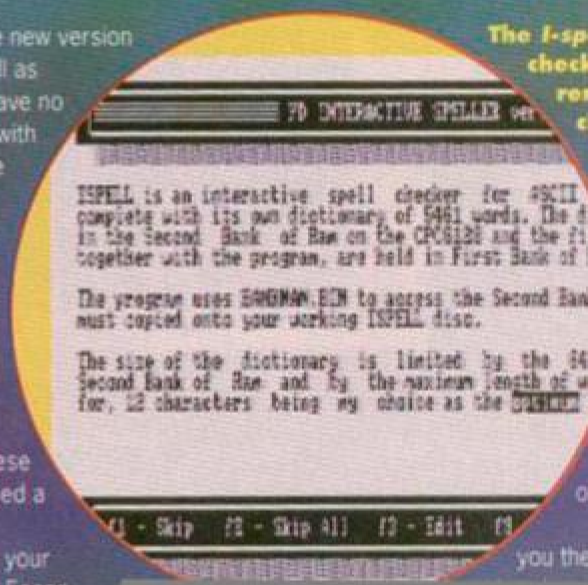
THE FUTURE

19 for a review by Angela Cook). The new version gives you 13 additional fonts as well as metamorphic script fonts which leave no ragged joins of letters, together with twice as much memory as came with the Mark II.

Output

With careful use there is no reason why your output shouldn't look as good as results produced using a £1000 PC. However, to maximise the potential of these programs, of course, you need a high-quality printer.

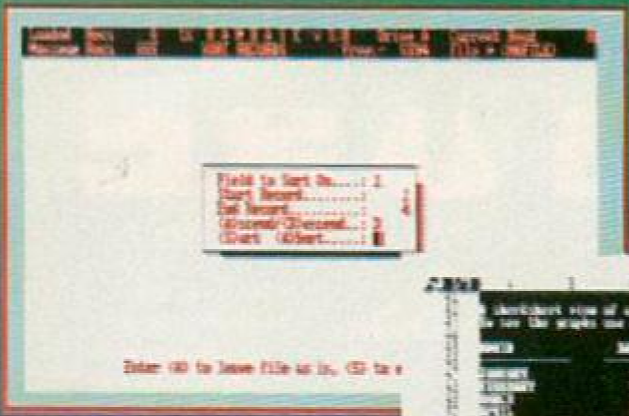
When buying a printer for your Amstrad look for one which is Epson-



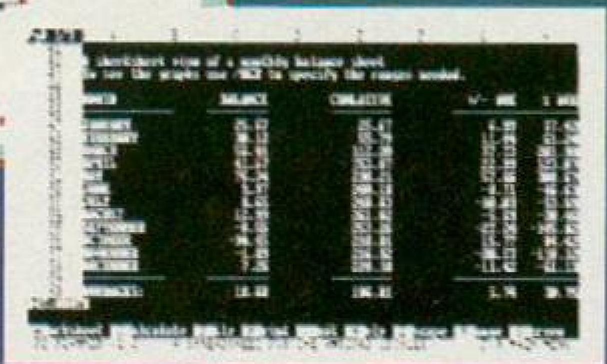
The *I-spell* spell checker. But remember spell chequers ave difficult ease two!

into cells and which enable you to perform complex functions on a series of figures, all in one go.

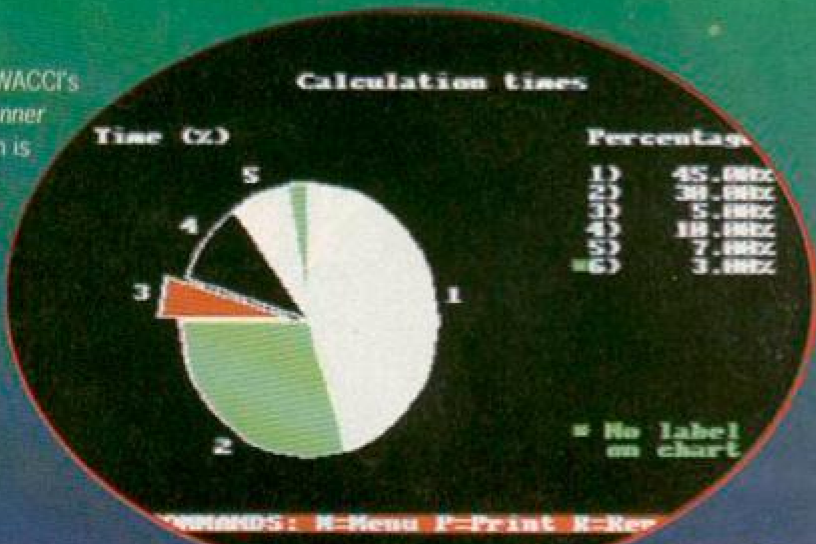
This gives you the ability to try



Above, *Rambase 3*: everything a small business could ask for.



Above, *PD Planner*. All together now... *Lotus 1, 2, 3!*



Amsgraph? A pizza? Or Triv?

better than the commercial versions. Shareware *Doscopy* is an example of the latter.

As for word processing there are a few PD text editors around. However, none provide you with the graphic capabilities of the *BrunWord* Module although VDE is a fine text editor and can cope with extremely large files. *I-Spell* takes care of poor spelling, though I personally prefer to call such mistakes 'typing errors'.

Pageboys and girls

If it's page layout you want why not go one step further and go for a DTP package? *Powerpage 128*, is a program which some people think beats any commercial rival and which is available from any good PD library. From the author of *I-Spell*, WACCI's Paul Dwerryhouse, we have *PD Planner* the PD answer to *MasterCalc* which is a fair match for number crunching. *Graph-Master* may do its job well but *Amsgraph* should well satisfy your needs in the charting area.

As for the subject of databases, in this somewhat flooded market, my vote goes to *Rambase 3*. However, as we reported in *AA112* *Rambase 4* is now on the way and if this program's predecessor is anything to go by you can be sure that this follow-up is almost guaranteed to be good.

So whaddya say?

The CPC is a great computer! Just because everybody else has been blinded by the likes of Microsoft doesn't mean you should.

Stick with your CPC and keep reading *Amstrad Action*. If you continue to invest in your CPC, and as long as commercial companies and PD support it, it should meet your needs – into the future. So, until you find your CPC is not doing what you need, don't give up on it!

Where to go shopping for the ultimate CPC

Product	Format	Price	Supplier	Phone
HARDWARE				
64K RAM Pack		Check the *AA* small ads		
3.5" disc drive		£70	Siren Software	☎ 0161 796 5279
Rom Box		£35	Campursoft	☎ 0141 554 4735
Stardump		Call supplier	Goldmark	☎ 01707 321711
ROMs				
ParaDOS		£15	Campursoft	☎ 0141 554 4735
Brunword Elite				
ROM Mark III Module		£63	Brunning Software	☎ 01255 862308
SOFTWARE				
GraphMaster	Disc-only	£15	SD Microsystems	☎ 01953 483750
Masterfile III	Disc-only	£30	OJ Software	☎ 01257 421915
MasterCalc 128	Disc-only	£28	OJ Software	☎ 01257 421915

WIN! WIN! WIN! WIN!

Answer the following question and win a Rom Box worth £35 or one of two copies of ParaDOS, RRP £15, courtesy of Campursoft. The dialling code for Campursoft is 041 so where is the company based? Send your answer on a postcard or back of an envelope stating which of the prizes you would like to win to Scot free, *Amstrad Action*, 30 Monmouth Street, Bath, Avon BA1 2BW by Tuesday, 28 March 1995.

NEXT MONTH:

Win a copy of BrunWord! Read Angela Cook's comparison of word processing packages.

So why do you need a modem?

Talk can be even cheaper says Richard Wildey as he puts the case for comms.



Net value! We introduced you to comms in *AA105*.

Wherever you go you can't miss the bulldozer laying the tracks for the 'Information superhighway', (see *AA105)* the paperless future in which everyone works from home and communicates with other people across commuter networks. At least that's the theory.

All this is being made possible via the Internet or the 'net' as it is known in one of many attempts to make the whole affair more appealing to the public.

Your CPC can chug along the hard shoulder with a bumper sticker truthfully stating: 'size isn't everything'. Because, although you can't get on to the colourful Hypertext World Wide Web system, in the ever standard world known as ASCII all computers are equal and your CPC *can* give you access to e-mail (electronic mail), bulletin boards (BBSs), MUD's (Multi User Dungeons), Fidonet (an e-mail network of amateur BBSs), and Usenet Newsgroups (Internet e-mail conferences).

These is some of the jargon modem (the hardware you need to make the Internet work for you) users employ when they talk. Thankfully, once you are on-line there are people and information files (FAQ's, Frequently Asked Questions), to help you.

Bulletin boards are computers systems run by individuals, who are known as Sysops (short for systems operator), which you can connect to with your modem. A BBS offers two main services:

- the ability to download public domain software and shareware files, together with...
- access to a large range of message groups.

While it is true that the files you can download are largely for the 16-bit machines don't forget that the CPC can use CP/M programs and read all ASCII text files. There is even a bulletin board which caters for the CPC – Aspects BBS. When downloading from PD libraries the file may be compressed. If it is you need the relevant decompressor for the CPC which will run under CP/M – check with the PD library.

E-mail messages are sent across networks to the intended receiver's computer, usually in a matter of seconds. (E-mail is likely to cause the demise of postal mail, or snail mail as e-mail disciples like to sarcastically call it.) The advantage of e-mail, of course, is that it is quick. There is, however, another plus point: using e-mail it is also very easy to quote from the original message.

Another way of communicating with humans is through MUD's or games. These are adventure games that are played by several people at once. The people you meet are real people on the other end of a phone line who you can talk to and interact. While the plots vary, of course, from game to game, as your text-based adventure always does, having real people to play with adds something extra. However, the price can be high because on top of your normal telephone call charges, in most cases, you have to pay a subscription fee, too.

Fidonet is a system in which many BBSs exchange messages. Fidonet is linked to BBSs, large and intercontinental, although it is not as widespread as the Internet. However, you are more likely to get a British response though Fidonet.

Fidonet contains many different areas in which topics are discussed, known as echoes. There is an Amstrad echo which is not devoted to CPCs but is open to discussion of all Amstrad products. This means that the Notebooks and PCs are discussed but, in fact, the contributors are mostly veteran CPC users such as WACCI's Peter Ceresole. The Internet equivalent is the Usenet Newsgroups of which there are thousands ranging from the informative, through the radical, to the downright ridiculous.

In between is COMP.SYS.AMSTRAD8BIT. Here a few 'famous' names in the world of the CPC can be seen talking about games, AmsDOS and emulators. Recent contributors to the group include Richard Clayton of Locomotive Software, Marco Veith, who wrote the PC CPC emulator.

Another Usenet Newsgroup that is also of relevance is COMP.OS.CPM where all matters of the CP/M operating system are discussed.

To access these newsgroups you need access to the Internet. Standard bulletin boards won't give you such access although they will allow you to use e-mail. To get on to the Internet you have to go through a service such as CIX. CIX is an Internet provider and CPC owners can use it because it is text-only based.

Before buying a modem you need an RS232 interface then you need some software. ZMP and ANSI-Term are the best modem software for the CPC. However, you can only log on at a speed of 4800 baud so the connection price won't be cheap.

I recommend that you only log on at off-peak hours, read and write mail off-line and that you ask whoever pays the bill before you get into comms...

WIN!WIN!WIN!

Win one of four copies of *All you need to know about the Internet*. How? Simply tell us what e-mail is short for and send your answers on a postcard or back of an envelope to: Comms comp, *Amstrad Action*, 30 Monmouth Street, Bath BA1 2BW before Tuesday, 28 March 1995.

Service providers

All of the following provide a terminal-style connection for the CPC to the Internet.

Aspects on-line address ☎ 0161 792 0260.
CIX ☎ 081 390 8446,
on-line address: ☎ 081 390 1255/1244.
CompuServe ☎ 0800 289378.
Delphi Internet ☎ 0171 757 7150.
Direct Connection ☎ 0181 317 0100.

I want to know more!



Try *.net* the monthly magazine for all things comms-related, £2.95 from newsagents. The March issue (right) is on-sale now... Go see!

Or try the .net Guides series – *All you need to know about the Internet*. Published by *AA* and *.net* publisher Future Publishing the series comprises 12 books in plain English for people who are more interested in the Internet than in computers. Each book costs £7.95.

Titles include: *Getting On-Line, Communicating On-Line* and *Using the Net*.

Next month:

Richard Wildey tells you why you need a Rombo Vidi Digitiser and explains what it is!

Assembly *line*

Richard Fairhurst is hard at work on the assembly line so stop whatever it is you are doing and read this...

One of the 'big things' about high-powered business computers – new PCs, Macs and so on – is that they multi-task. In other words, they can do more than one thing at once. A simple CPC, designed ten years ago and barely updated since, can hardly be expected to do this. Can it?

Not quite. But using the sophisticated 'interrupt' system provided by the firmware, you have the next best thing. As the name would suggest, this enables you to interrupt whatever the computer's doing at the time, and carry out some other task instead.

This month's routine does exactly that: it operates a countdown timer, which changes the border red when it reaches zero.

Okay, I *know* it's not the most practical outcome... Imagine that it's your Streetfighter hero dying horribly and soaking the monitor with his blood. Just use your imagination...

There are three main routines in the program.

- 'On', which turns the countdown timer on. You call it with HL containing the number of minutes to start from and A the number of seconds. These are now stored in the variables at the end of the program.
- The program then calls the firmware routine at &BCD7 to set up an interrupt. The address of the actual timer routine is held in DE and HL points to nine bytes of workspace (the 'event block').

B is a byte known as the 'event class', and C contains a ROM number, however, for an interrupt routine between &4000 and &C000 – 95% of the interrupts you'll ever need – just keep them as &81 and 0 respectively.

Actually, the interrupt routine is called 50 times every second. You only want the timer to tick down once per second. So a variable 'ticks', counts down from 50, and updates the timer when it reaches 0.

- The next routine turns the interrupt off. All you need to do for this is set HL to the address of the 'event block', and call &BCDD. Note that you modify the first byte of 'on' to &C9 – RET – when 'on' is called and set it back to 0 – NOP – do nothing – when 'off' is called. This is so that you can't accidentally CALL 'on' while the interrupt is still on.

The main routine, imaginatively called 'rout' (*you should get a job in Saatchi and Saatchi's product-naming department- Ed*), first of all decrements 'ticks'. If it's not zero, then the routine returns: otherwise, the current value of the countdown timer is displayed by the sub-routine 'disp', a sub-routine which switches to window 7, calls a fairly standard 'print number' routine for the minutes and seconds, and switches back to the default window 0. The CPC's window system is particularly suited to this pseudo multi-tasking operation.

Finally, back in 'rout', check to see if the time is '0:00': If it is the border turns red and the interrupt turns off. You then decrement the seconds count and also the minutes, if the timer was previously at ':00', and return from the routine.

A couple of provisos...

The main interrupt routine ('rout' here) should never corrupt IX or IY, and needless to say, it shouldn't be too slow. If a routine is going to be executed 50 times every second, it needs to get its business over and done with so that the computer can return to the main program – be it BASIC, *Protext* or *Chuckie Egg*.

You might like to try rewriting this routine to maintain a clock in window 7. The basic principle is the same, except that you count up rather than down, and that you need to add an hour display. Other possible uses for interrupts include animation, music, and a message which appears every half an hour telling you to go away and have a break.

Actually, come to think of it..

NEXT MONTH:

If all this seems like a bit of a departure from the usual game coding stuff, don't worry. Next month you delve into the insides of the Amstrad's interrupt system to find out how professional games are written entirely around interrupts.

Timing it just right

```
Countdown timer
org &8000
nolist
;Routine to turn countdown on
;On entry, HL contains minutes } to set clock
to
;          A contains seconds }
.on       nop
          ld (minute),hl
          ld (second),a
          ld a,2: ld (ticks),a
          ld a,&C9: ld (on),a
          ld hl,eventb
          ld b ,&81
          ld c ,0
          ld de,rout
          call &BCD7
          jp disp
          ;Routine to turn countdown off
          .off xor a: ld (on),a
          ld hl,eventb
          jp &BCDD
          ;Event routine
.rout ld hl,ticks
          dec (hl)
          ret nz
          call disp
          ld a,(second)
          or a
          jr nz,notscr
          ld hl,(minute)
          ld a,h: or l
          jr nz,notmcr
          ld bc,&0606
          call &BC38
          call off
.notmcr   dec hl: ld (minute),hl
          ld a,60 .notscr dec a : ld
(second),a
          ld a,50
          ld (ticks),a
          ret
          ;Routine to display time on screen
.disp ld a,7: call &BBB4
          ld hl,&0101: call &BB75
          ld hl,(minute): call prhl3
          ld a ,| :| : call &BB5A
          ld a ,(second)
          ld l,a: ld h,0: call prhl2
          ld a,0: call &BBB4
          ret
          ;Print HL as decimal number
.prhl3 ld de,100: call prhlr
.prhl2 ld de,10: call prhlr
          ld de,1
.prhlr xor a .prhllp or a: sbc hl,de: jr
c,prhlo
          inc a: jr prhllp
.prhlo add hl,de
.prhly add _0| : jp &BB5A
          ;Variables
.minute dw 0
.second db 0
.ticks db 0
.eventb ds 9
```

all formats Computer Fair

Summer is still only a display in travel agents' windows, so what have you got to look forward to? Well, All Format Computer Fairs for a start! Angela Cook has already been...

It was a cold and rainy day and I did not want to get out of bed, but then I remembered I was going to a computer fair...

The history

All Format Computer Fairs have been going for seven years. In the early eighties they were specifically for the Sinclair and called 'ZX Micro Fairs'. About 20 were held in London, then there was a gap of several years in which the computer industry drastically transformed into two separate markets: games and business. They were restarted by Bruce Everiss who decided to cover *all* formats, hence the current name...



Yvonne: guarantees discs.

The show

When I arrived at the show it was already in full swing. It was set in a large sports hall and everything was well spread out. There were lots of stalls and lots of noise, but were there lots of CPC goodies?

As luck would have it, the first stall was that of GS Electronics staffed by Graeme Scarr. There was a box full of CPC games and more back at HQ. Graeme has a variety of Amstrad equipment...

"Oh, we used to sell a lot of Amstrad stuff, but we find we don't sell all that much now."

Well, that was hardly surprising when he keeps all the stuff hidden away in a box under the table! Graeme said he has a few thousand games to sell.

The people

I also spoke to Mark Willis of Willis Enterprises. He had some Amstrad hardware to sell. Mark had an additional attraction on his stand – a lovely dog called Doyle. Willis Enterprises also does printer ribbons for the DMPs, STAR printers (which he says are very popular), plus lots of other printers.

Oasis Computer Systems had a few bits and pieces of CPC-related goods including a number of manuals and some of the original games that come with the 464.

Oasis used to supply a lot of Amstrad goods but, like a lot of other people, are scaling down their projects. However, there are still 3" discs available and the woman staffing this stall had boxes of them. In fact, Yvonne Buckingham was selling them at just £1 a throw. Yvonne said:

"We are about the only people to guarantee every disc we sell, and will replace a faulty one free of charge."

Aside from strictly computer items, there were stalls concentrating more on general goods. Disc boxes, mouse mats, cleaning fluid, ink refills and so on. A rather nice chap, called Chris Salsbury, is one such supplier of computer consumables. There were some others, but Chris was one of the all-round cheapest. Another is Neil Cappleman. Neil runs Video and Computer World and specialises in 8-bit computers. He goes to most of the shows, so if he's there his stall is probably worth a look.

I also spoke to a lady called Chemille who was looking for CPC equipment. She said:

"I come to all these places, and there is usually stuff around, you just have to look hard for it."



Graeme: games to go.

A man called Bryan, who looked like Paul Merton, said he had been coming to the fairs for years.

"When I first started coming to the All Format Computer Fairs, there was loads for the CPC but now there isn't all that much. It's just the luck of the draw, really, as to whether there is anything here."

The conclusion

Was it worth going? Definitely. There was a variety of bits and bobs on offer. However, every computer fair differs. Some have mounds of CPC-related items, others have nothing.



Mark: printers and a dog.



Bruce Everiss, fair organiser, keeps you postered.



Chris: one of the cheapest.

Fairs are definitely picking up again and getting better. Some other people were selling CPC equipment, one stall had loads and loads of stuff but preferred to remain anonymous...

WACCI, traditionally, a supporter of computer fairs is planning a convention in September (see page 6). I recommend that, if there's a show near you, go (see page 6 for a free ticket) especially if you have more than one type of machine. There are lots of savings to be made on all formats!

Contacts...

GS Electronics: 0831 513996
Willis Enterprises: 01684 569059
Oasis Computer Systems: 01222 531270
Chris Salsbury: 01865 883639
Video and Computer World
(Neil Cappleman): 0890 883232
Woodpecker (Yvonne Buckingham):
01293 871357



FREE for all formats

Don't pass up on this offer!

***AA* have teamed up with Bruce Everiss to let you try an All Formats Computer Fair for free! Turn to page 6 now to find your free ticket.**

The last word?

How did *BrunWord Elite ROM Mark III* cope with the indefatigable Angela Cook? Or, rather, how did Angela cope with *BrunWord*?





Top, the bits that look like melted tar are, in fact, the basis of the brilliance of BrunWord.

I sat down at my computer and pulled out the *BrunWord Elite ROM Mark III*. I plugged it into the back of my 6128 then decided to open my post first. The first item was a reply to a letter I had sent to a reader of *CPC User*.

I had asked him which word processor he used. It turned out to be *BrunWord*. He had enclosed examples of fonts he had kindly printed out. They were quite wonderful. They showed various fonts which I immediately took a liking to.

My correspondent commented on the fact that everything was all in one package: that there are no extras to pay for. This all made *BrunWord* look a little more 'exciting'.

I switched on my computer. I didn't know how to load up the package. I pulled out the manual and read far enough to learn that you type IBW to load *BrunWord*. It fired up. A menu in mode 1, on a blue background with white writing, appeared.

ENTER looked a good choice and I was introduced to a nice-looking text screen. It was at this point (where I could think of nothing to type on to the vacant screen) that I decided it really was time that I went and cleared up the living room. But on my way, I was interrupted by a telephone call.

The telephone call

It was Dave Coleno (the new editor of *Bonzo Scrapyard*). Soon we came round to *BrunWord*.

"Oh, yeah, I've got that. Brilliant bit of hardware, that is," he commented. He proceeded to tell me all of BrunWord's good points and a few of the bad. He seemed so over the moon that I decided that the living room could wait.

I gathered my courage and picked up the *BrunWord* manual (I usually try to steer clear of all manuals and instructions). I was pleasantly surprised. For one thing, the manual did not bite me, and, secondly, it was not full of gibberish. Everything was written in a down-to-earth way that even someone with half a brain could understand.

The manual told me how to clean my edge connectors (the bits at the back of the keyboard that you plug your memory/disc drive/ROM box/multiface II/*BrunWord* into), how to fit the *BrunWord* Module, the compatibility requirements, and what to do if *BrunWord* should refuse to work (unlikely).

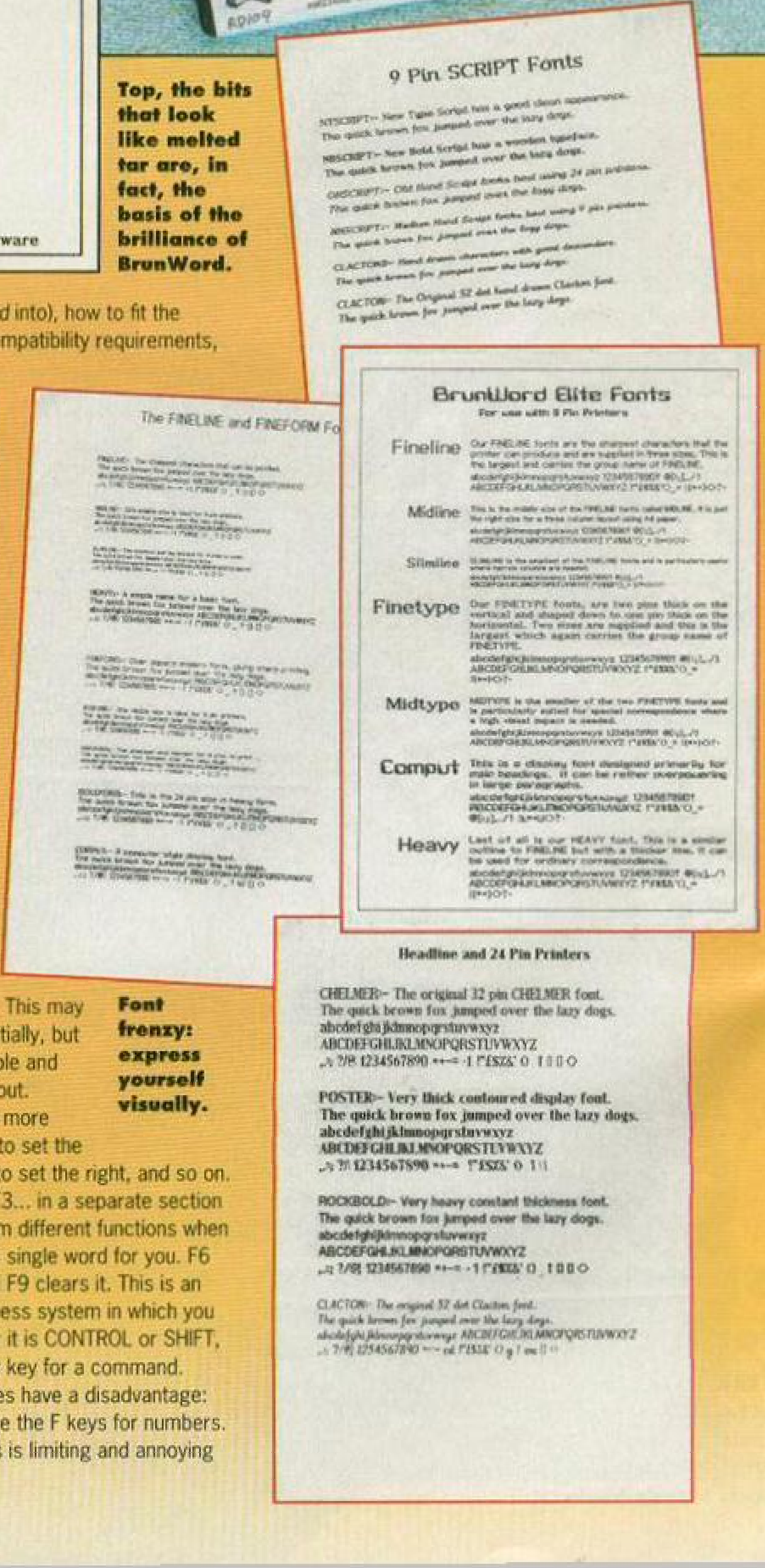
I followed the manual, and installed *BrunWord* correctly on to my nice clean computer. The editor functions are all very easy to use. They are explained well and are very useful. Some of the keypresses at first seem a little strange, like CONTROL and B to justify a paragraph of text. But then you see that to unjustify it, you press CONTROL and V, the key directly left of B. Then things start to make sense...

CONTROL W justifies the whole text, CONTROL Q unjustifies it. This may appear a little strange, initially, but seems perfectly acceptable and logical when you think about.

Other keypresses are more memorable, CONTROL L to set the left margin, CONTROL R to set the right, and so on.

The 'F' keys (F1, F2, F3... in a separate section on your keyboard) perform different functions when depressed. F3 looks up a single word for you. F6 marks a block of text and F9 clears it. This is an advantage over the keypress system in which you must remember whether it is CONTROL or SHIFT, or COPY and another key for a command.

However, this does have a disadvantage: you cannot use the F keys for numbers. At first this is limiting and annoying



Font frenzy: express yourself visually.

But I've already got it!

So many people have brought *BrunWord Elite ROM II*, it would seem silly to upgrade at great expense, and still be stuck with your old Mark II to try and get rid of. That's why Brunning Software have come up with this great deal. An update for your Mark II costs from £39. Send your Mark II ROM and the necessary money to receive a Mark III ROM with the extra fonts, features and memory.

Alternatively, if you would like *BrunWord*, but cannot afford the Mark III price, you can buy a second-hand Mark II Rom for only £49 – a saving on the original of at least £14. In both instances, speak to Peter Brunning first (see box, far right).

but after a few days you remember to use the number keys at the top of your keyboard.

Can you spell?

Most people cannot spell all that well. I must be one of the worst offenders and all I can say is, 'Thank heavens for spell checkers!' I think I speak for all word processor users world-wide.

BrunWord's spell checker has more than 33,000 words in memory. *BrunWord III* has an as-you-type spell checker, alerting you with a (sometimes rather irritating) beep when you have typed a word it regards as incorrectly spelt. You can then check that word or carry on typing. This is a useful feature which you can also ignore.

The actual spell checker is fast: the .5Mb memory stored in the unit you buy is the equivalent of a silicon disc. The spell checker is also simple to use, however, the manual does make things a lot clearer. When you come to a misspelt word, you can choose to edit it yourself, or TRANSFER the correct word into your text.

With such a big memory (upgraded from the Mark II ROM), you can save files into this memory, rather than to disc while you are working on them.

The memory also allows you to 'TEAR' and 'WEAVE' bigger blocks of text (some computer terms originate from the textile industry). These are examples, of what are now more commonly known as Cut and Paste. And, you simply mark your text, save it into memory, and copy/move it to somewhere else. This is an excellent feature, which is now available on most word processors.

It's a secret!

Another excellent, but less common, feature, of *BrunWord*, is that it can encrypt personal, confidential or secret files.

Peter Brunning, the *BrunWord* creator, says his system would baffle top programmers and take them years to work out. Indeed, this system is very good, and requires a password to get into it. Mind you, if you forget the password, you're stuck up a creek without (*Angela! – Ed*) your file!

See it in print

Although *BrunWord Elite* was originally created for use with 24-pin printers, that nice Mr Brunning has made it possible for all of us 9-pin printer users to reproduce the excellent output from *BrunWord*. Various print techniques, fonts, the use of headlines, and even overprinting are controlled with so-called INCODES. These codes are put into the text ready for the printer to read and decode.

An 8-bit status port is included with the *BrunWord* package to make for a better print. This piece of hardware gives information back to the program. It automatically senses if your printer is on or off, or out of paper, and so on. You do not realise the value of this until you start looking at other programs without the feature. What is on-screen is not necessarily what is printed. Look to the left or right and you see a screen grab. On-screen, any text that is to be entered into columns looks like this. Two columns are two pages, and so on. This is one disadvantage of *BrunWord*. It does not look right, and you may panic, but, if read properly, the manual explains what happens and why.

Another wonderful aspect of the printing are the fonts. On the previous page you find some of the example fonts from *BrunWord*. These are printed on 24-pin and 9-pin printers. The Mark III ROM includes more fonts and some, such as the script fonts, which have been updated.

BrunWord can provide two sorts of script font:

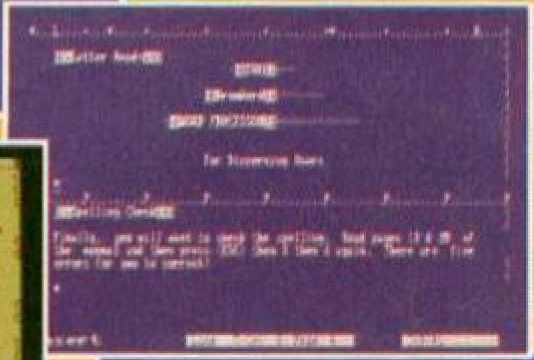
- with links, as you would write it by hand, as most word processors provide it, and,
- without links. The lack of links creates a stunning effect and proves that *BrunWord Mark III* is highly polished and refined.

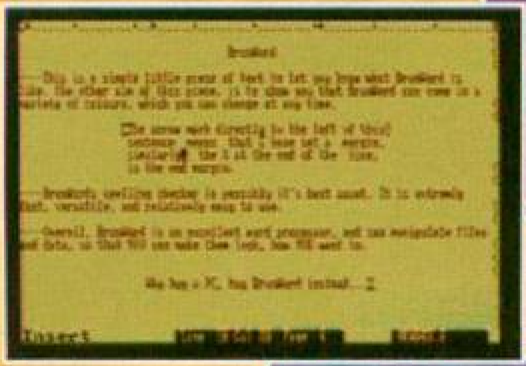
What's the database?

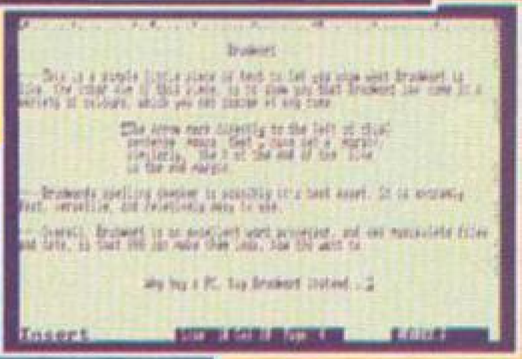
Info-Script is *BrunWord's* own built-in database. That's right, a built-in database. This is especially handy because it means you can enter *Info-Script* without physically leaving *BrunWord*.

Info-Script has a menu system similar to that in *BrunWord*. You can enter immediately and use the standard format or edit the set-up to cater for your specific needs. Either way, *Info-Script* is genuinely simple to get to grips with.











Database, choice of colour, spell checker...

The advantage of this system is the fact that you can go from your letter to the database, call up your customer's/friend's/contact's name, address and details and mailmerge it into your letter. You can put your records into directories and display them all at one time, giving you an overall view. Although this is a very powerful tool, it is slow to type on to screen.

Your SORT of function

You can link cards allowing you to see more. Of course, the normal FIND and SORT functions are available, together with a feature that enables you to set up your own format of printing.

Info-Script is a useful and versatile program that adds to the user-friendliness and exceptional qualities of the *BrunWord* package.

The definitive guide

Of course, it goes without saying that there is more than the *BrunWord Elite ROM Mark III* available... Much more. Here's the lowdown.

BrunWord 6128 Disc: £30
This is designed to be used on an unexpanded 6128, and also has special internal software to enable it to be used on a 464 with extra memory fitted.

***BrunWord Elite ROM Mark II: £63* without/with RomDOS**
An excellent package which includes the *Info-Script* as-you-type spell checker; the fonts and a lots more. This slots on to the back of your 6128, as does the Mark III.

BrunWord PC: £55
This package incorporates all the functions of the CPC version, only it's better. You can switch from CPC to PC *BrunWord* directly. No need to mess about with transfer programs.

So what do you think?

I found that I did not have to read the manual for the most part (although the Elite printer functions are difficult to swallow) and I think anybody can use *BrunWord* as a simple word processor. You could get a PD program to do this but *BrunWord* is extremely powerful and deserves the credit which is due.

A lot of hard work has been put into *BrunWord*. *Amstrad Action* has always seemed to be biased towards *Protext*. *Protext* is a very good program in itself (*Angela, the word processing feature is in next month's AA – Ed*), but how does *BrunWord* compare?

I think *Brunword* is excellent, not only as a home package, but also in an all-round business package capacity.

In September 1992 the BrunWord creator, said:

"...I think *BrunWord* on ROM now is hitting the end-stop for what is achievable on this computer."

With the Mark III Peter Brunning has shown how much more the CPC can give us, by improving something he thought impossible to better.

Writer's opinion

User-friendly Mostly, but the Elite printer functions are a pain	90%
Production Quality Excellent, the best I have ever seen on a CPC	99%
Spell checking Easy to use and very fast	97%
Design You get to choose your own colours, remember	90%
Value Seems pricey, but is, in fact, excellent for the hard and software that you are receiving	96%
Overall Do I have to give it back?	95%

A BrunWord in your shell-like

BrunWord: £63
Address: Peter Brunning, 138 The Street, Little Clacton, Clacton-on-Sea, Essex CO16 9LS
☎ 0255 862308 (9am – 5pm)



Cheat mode

Bobby, Demi and Patrick. Yup! Lee Rouane's pokes give you just that little bit Moore of everything! Are you ready?

Living Daylights

Bobby Kelters, of Tyne and Wear starts us off this month with a shaken, not stirred, cheat for the *Living Daylights*. He suggests that hitting the key 1 with your little pinkie enables you to skip a level.

Heavy on the Magick

Tim Ford from Harpenden, Herts. provides us with a magical tip for that spell-ridden adventure, *Heavy On The Magick*. To get high skill, stamina and luck, follow these simple steps to success...

1 At the start, pick up the grimoire and go east.
2 Go east again, then south, then east once more.
3 Pick up the loaf and go to options (if there is a monster in the room you have to move to another room before pressing options).
4 Go to restore game and type any letter.
5 Press escape to abandon and you find that option 6 has become available.
6 Press 1 and you start again, but, with the same skill, stamina and luck you had after getting the grimoire and the loaf.
7 Do steps 1-6 again until your skill is about 40.
8 Now is the time to use option 6 to swap your skill and luck scores.
9 Now carry on until your stamina and luck scores have reached 99.
10 Now swap your skill to the number that was about 40 and everything else to 99.
11 Then save your character. When you want to start playing, load your character and repeat all of the steps except number 1.

Congratulations! You have now created a very powerful character.

Turbo the Tortoise

Following in his father's footsteps, our next cheatster vows to continue the good work of his father (*er, who's that, then, Shelley? – Ed*).

Here is a taste of what's to come. *Turbo the Tortoise* is the victim and infinite energy the result.

```
JADK 100·'Turbo·The·Tortoise·Cheat
IAJL 110·'By·Corey·Jordan·Parker
JABE 120·'The·Notorius·Cheatster
JAOL 130·'Nicknamed·The·Devil·Child
GAMJ 140·'Infinite·Energy
IACF 150·'464·Owners·Delete·|TAPE
DACP 160·'In·Line·320
AAPN 170·'
GAAO 180·DATA·3E,00,CD,0E,BC,3E,01,CD
GAJK 190·DATA·6B,BC,21,47,BF,11,00,48
GABL 200·DATA·CD,31,BF,CD,00,48,21,53
GANK 210·DATA·BF,11,00,48,CD,31,BF,21
GAFK 220·DATA·1E,86,22,41,79,21,5F,BF
GAKK 230·DATA·11,00,30,CD,31,BF,C3,3F
GAOO 240·DATA·BF,06,0C,D5,CD,77,BC,E1
HAEB 250·DATA·CD,83,BC,CD,7A,BC,C9,3E
GAKJ 260·DATA·7F,32,F1,5D,C3,00,30,63
GAJJ 270·DATA·6F,6D,70,73,63,72,20,2E
GAEK 280·DATA·74,74,20,6D,61,69,6E,6C
GANI 290·DATA·6F,61,64,2E,74,74,20,62
GAMJ 300·DATA·6C,6F,63,6B,73,20,20,2E
GAFI 310·DATA·74,74,20,32,F1,5D,C3,00
HAGH 320·|TAPE:code=&BF00:READ·a$
HADF 330·a=VAL(_A| +a$):POKE·code,a
IAJD 340·code=code+1:start=&BF00
GAHC 350·OUT·&BC00,1:OUT·&BD00,32
GAKC 360·OUT·&BC00,2:OUT·&BD00,42
GAPC 370·OUT·&BC00,6:OUT·&BD00,24
DAFJ 380·RESTORE·420
HANH 390·FOR·col=0·TO·15:READ·num
FAJO 400·INK·col,num:NEXT
EAPB 410·CALL·start
FABJ 420·DATA·0,13,6,15,22,25,9,9
FAJL 430·DATA·16,7,2,10,11,3,15,26
```

The multiface way

The (T)s and (D)s before the address indicate whether the poke was written for a tape or disc game (they might work on both, it's worth a try). Just in case you don't already know how to put in these black box pokes, here are the steps to success...

```
A) Load the game as normal.
B) Press the RED button on the MULTIFACE.
C) Press _T| for tool.
D) Press _*| to make sure you select the code.
E) Press _H| for HEXADECIMAL input.
F) Press _SPACE| for input.
G) Type in the ADDRESS (4 characters ie. 3A7C)
H) Type in the POKE (2 characters ie. A7)
I) Press _RETURN|
J) If there is more than one poke goto (F)
K) Press _ESC| back to the menu.
L) Press _R| to return to the game.
```

Multiface pokes

Keeping those red buttons alive and kicking this month are Paul Stuart Williams and Fraser Clark. Keep them coming lads, you know we love 'em. And you get your names in print. Again.

Game Name	Media	Poke, Addr	Effect
Shadow Of The Beast	(T)	&2C09,&00	Invincibility
Tau Ceti (Special Ed)	(D)	&2D57,num	num=Number Of Missiles
		&2D58,num	num=Number Of AMM's
		&2D59,num	num=Number Of Flares
Cyberball	(T)	&24E9,&FF	255 Minutes
		&24F6,&32	50 Points For Player 1
		&24F7,&32	50 Points For Player 2
Escape Planet RM	(T)	&4202,&A7	Infinite Credits
		&CEB5,&63	99 Bombs For Jake
		&CEB6,&63	99 Bombs For Duke
Xybots	(T)	&3D76,&63	99% Energy (ACE)
		&3D53,&63	99% Energy (ROCK)
		&3D77,&63	99 Keys (ACE)
		&3D54,&63	99 Keys (ROCK)
		&3D78,&63	99 Credits (ACE)
		&3D55,&63	99 Credits (ROCK)
		&3D79,&1E	More Powerful Shot (ACE)
		&3D56,&1E	More Powerful Shot (ROCK)
		&3D7E,&28	Move Faster (ACE)
		&3D5B,&28	Move Faster (ROCK)
		&3D7F,&08	Better Shield (ACE)
		&3D5C,&08	Better Shield (ROCK)
		&3D80,&66	Faster Shots (ACE)
		&3D5D,&66	Faster Shots (ROCK)
		&3D81,&0F	Better Shot Power (ACE)
		&3D5E,&0F	Better Shot Power (ROCK)
		&3D82,&16	Energy Goes Slower (ACE)
		&3D5F,&16	Energy Goes Slower (ROCK)



TECHY forum

Burdened with CPC problems? Let Richard Fairhurst take the weight off your shoulders. Better now?

QUESTIONS AND ANSWERS

Inkey fingers

I have a few problems which I hope you can resolve...
1 Could you print a list of direct hardware access ink numbers?
2 How do I scroll the screen in machine code? I want a static status bar at the bottom of the screen, and I find the LDIR opcode too slow.
3 What is the M flag all about?
4 Is there a firmware version of BASIC's INKEY command? I normally use &BB09, but this only returns one key, so it's no good for checking combinations.
5 What happened to Assembly Line in *AA110*? If it's been stopped, can you recommend a fanzine with a good machine code tutorial for competent-ish coders?
6 How do you change the graphics pen in machine code?
7 Do second disc drives for the CPC 6128 need a separate power supply?
8 Due to a bug in one of my programs, a headerless file was saved with an unknown synchronisation byte. Is there any way of finding out what it is?
9 If I try to set up an interrupt using &BCD7, and later try to stop it using &BCDD, it keeps on running. What's wrong?
10 How do I tell how much memory a computer has from within a program?
11 I suppose the machine code IN and OUT opcodes are the same as the BASIC commands, but what's all this a,(c) and c,(c) business about?
Alistair James, Lowestoft

Er, Alistair, you said a 'few' problems... Heaven help me when you have 'lots!' Still, here goes...
1 Here they are, in firmware order (so black is first and bright white last): 20, 4, 21, 28, 24, 29, 12, 5, 13, 22, 6, 23, 30, 0, 31, 14, 7, 15, 18, 2, 19, 26, 25, 27, 10, 3, 11.
2 You don't say whether you want to scroll the screen up, down, left or right. If it's down, set B to zero and call &BC4D. If it's up, set B to any value other than zero and call &BC4D. You should set A to the 'encoded ink' to which you want to clear the top/bottom line – 0 for ink 0. To scroll the screen left or right, first of all call &BC0B, increment or decrement HL (depending on in which direction you want to scroll), and then call &BC05.

Try this and the status bar moves, too. Use LDIR to scroll it in the opposite direction to the way you scrolled the whole screen, so that it goes back where it started. However, the screen address of the status bar changes every time you scroll the screen, so use &BC1A to find it out. On entry, H contains the column and L the row (in character co-ordinates from 0 upwards). On exit, HL contains the screen address.
3 There isn't an M flag, so you probably mean the sign flag, which is set to 1 if an operation produces a result with its highest bit set. (In other words, negative in two's complement arithmetic). This is described as P (plus) when it's 0, and M (minus) when it's 1.
4 Try &BB1E: on entry, A contains the key number. On exit, carry is false if the key was pressed (and C contains the status of SHIFT and CTRL), true if it wasn't. A and HL are corrupt.
5 Assembly Line is still with us – see page 16.
6 The routine is at &BBDE, and the pen colour should be in A on entry.
7 Yes – although it is possible to wire them up to the 5v line from the monitor if you know what you are doing.
8 It is, although it takes quite a bit of effort and you need to do some serious hacking with the operating system ROM.

You need to disassemble the CAS READ firmware routine. On all CPCs except the 464 it is located at &29A6. This calls a routine at &2A89, just before the end of this routine (at the XOR (HL) opcode). A contains the actual sync byte of the file so copy out the &29A6 routine changing the CALL &2A89 to call a copy of the routine which stores A somewhere in RAM before XORing with (HL). You can call the originals of all the other sub-routines used by the &29A6

TOP TIPS

Plus points

Keith Woods's article 'revealing how to make the most out of your Plus' in *AA112* contained a number of inaccuracies...

First: before poking the ASIC RAM with any values from BASIC, you must set MEMORY &3FFF first – otherwise the computer will very probably crash. This is such an elementary point I'm amazed it wasn't mentioned. You must also lock the ASIC after making changes to colours and such like.

To do this, send the code in the 'Listing 1', but with the &EE at the end changed to any other number.

Keith's method (which is oddly identical to that used in the Blue Impulse PD sprite editor) is also unsuitable for any serious BASIC programming, because, as he admits, it slows down keyboard and disc operations.

What the POKE &6800,1 actually does is set a PRI (Programmable Raster Interrupt) at scan line 1 – the top of the screen. This is possibly the worst place to put it, as there is a CPC firmware interrupt at this point, too. So the PRI barges in and wrecks the firmware's keyboard scanning.

Therefore, to stop the computer from resetting colours to standard CPC values, you need to modify the firmware interrupt.
Rob Scott, STS Software

And here's some code to do exactly that...

Type CALL &8000 to turn the firmware interrupt off (and hence Plus colours on), and CALL &800C to turn the firmware interrupt back on.

```
10 MEMORY &3FFF
20 FOR n=&8000 TO &8016: READ a$
30 POKE n,VAL("&"+a$): NEXT
40 DATA 21,17,80,01,FF,81,11,12,80,C3,D7,BC
50 DATA 21,17,80,C3,DD,BC,AF,32,F8,B7,C9
```

For an example of top-notch Plus coding, take a look at Rob's *Genesis* demo.

Partial saviour

When saving memory directly, of course, it's easy just to pick the chunk you want and save that area only. But if you want to save a BASIC program, you have to save the whole lot all at once, don't you?

No, you don't. (Confess, you knew that was coming). It's possible to save, for example, a set of sub-routines without having to save or delete the main program. If one sub-routine is between lines 2000 and 2070, and another between 2700 and 2780, you type:

```
OPENOUT "SUBROUTS.MOD"
LIST 2000-2070,#9
LIST 2700-2780,#9
CLOSEOUT
```

Note the anomalous positioning of the #9 at the end, not the middle, of the LIST statement.

It's a good idea to save these with a different file extension than .BAS, if you are using a disc system, otherwise you can get confused as to which file is a sub-routine and which is a collection of sub-routines.

Many programmers, in BASIC as well as machine code, find it profitable to save time by building up a disc of useful sub-routines.

routine, but do switch on the lower ROM.

9 Are you setting the parameters up correctly? HL should point to the same 10-byte area of memory (the 'event block') for both &BCD7 and &BCDD.

10 First poke a value into, say, &4000 in normal memory, then switch into extra memory (LD BC,&7FC4: OUT (C),C), and poke a different value into the same address. Now switch back into normal memory (LD BC,&7FC0: OUT (C),C). If it's a 64k machine, the switch into/out of extra memory will have been ignored, so the value at &4000 is the second one. If it's a 128k machine, the second value will have been succesfully stored in the extra memory, and the value at &4000 is the original one.

11 First of all, the port number is always in BC (not C, as the (C) in the op-code would suggest). So set this up first. Then, to perform an OUT, put the value to be sent in a different register and use the appropriate opcode. So, to send &C4 to &7F00, you write LD BC,&7F00: LD A,&C4: OUT (C),A. To read a byte from &F400 into the accumulator, use LD BC,&F400: IN A,(C).

As you see from the answer to 10, there is a short cut you can use. Many ports on the CPC are wired up in such a way that the low byte of the port number doesn't matter. So &7F00 is the same as &7FFF, for example. (Try it from BASIC.) To this end, you can set the low byte of the port number to be the parameter you're sending, and use OUT (C),C.

Round and round

I would like to ask you a nice simple question (*very considerate! – Richard*) because you always answer these difficult machine code ones which I don't understand at all!

How do you draw a circle in BASIC? The old ZX Spectrum 48k I used could do it with one command, but if I type CIRCLE into my Amstrad, it just comes up with 'Syntax error'.

Clive Abbot, Bury

Here's a BASIC subroutine which does what you want, although, admittedly, it's not quite as fun as the Spectrum command. (If you still have your Speccy, try adding a third parameter to the CIRCLE command to get all sorts of weird effects.) The sub-routine starts at line 1000, and an example of how to use it is in lines 10–30.

```
10 DEG
20 x=320: y=200: r=100
30 GOSUB 1000
40 END
1000 MOVE x+r,y
1010 FOR n=0 TO 360 STEP 5
1020 DRAW x+r*COS(n),y+r*SIN(n)
1030 NEXT n
1040 RETURN
```

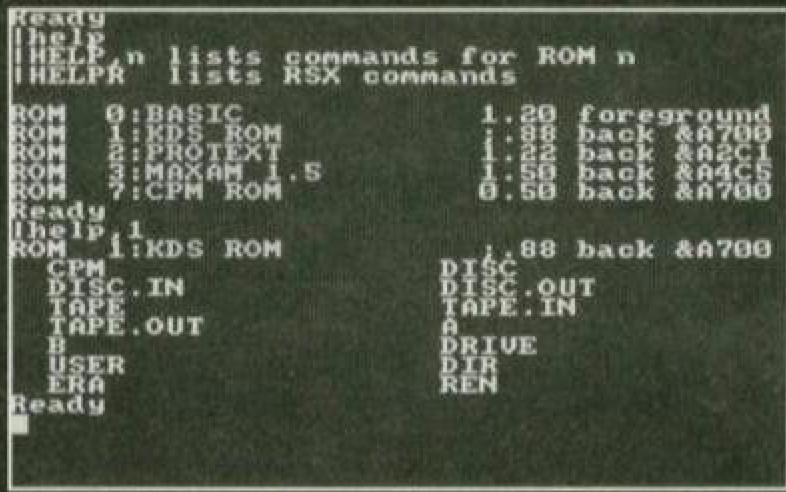
It actually draws a regular 72-sided polygon (I dread to think what the word for that is!). This is slightly faster, but the difference in shape isn't detectable. If you want to draw a circle at a different place on the screen, change the values of x and y: to alter the radius, change r.

Where, oh where?

After your recent articles, I have decided to buy a Multiface and a ROM-board. However, why don't you print the addresses and/or phone numbers of the suppliers the products mentioned come from? I want to find out more about: *Soundhakker, The Ultimate Sprite Searcher, ROMDOS, Protext, Maxam* and also *Hackit*.

Thank you for the compression article in Assembly Line, (*AA109*) but what about compressing code? Saying 'it is a lot more tricky' is a cop-out because you don't understand it, isn't it?

Richard Edmondson, Bo'ness



Here you can see the external commands set up by what's listed as the KDS ROM, but what is actually called ROMDOS.



Above: the numbers game. Here is a hexadecimal representation of the first few bytes of the ROMDOS ROM. Look closely, and you can see the ASCII characters of the commands, together with last bit set on the last character.

Okay, takes deep breath...

Here goes:

Soundhakker Pro is now (almost) PD, available from Sheepsoft ☎ 01446 700730, get *The Ultimate Sprite Searcher* from Sentinel, ☎ 0181 876 7032. Buy *Hackit* from Siren ☎ 0161 796 5279, together with the XL version of ROMDOS.

To be frank, you are far better off with ParaDOS from Campursoft ☎ 0141 554 4735.

For *Maxam* and *Protext* try OJ Software ☎ 01257 421915.

The main principle in code compression is to save space by repeating code which occurs earlier in the file. For example, if you had the bytes 3E 07 CD 5A BB at addresses &3127 and &3A90, then it would save space to store an instruction at &3A90 saying 'repeat 5 bytes from &3127'.

Very simplistic crunchers, such as Crown's popular *CRUNCH*, use a basic version of this idea – combined with the 'run length' compression used in screen compressors.

Sophisticated crunchers, such as *CRUNCH* and CRLZH under CP/M, use more advanced variations to produce highly effective savings. For example, you can reduce a 36K text file by half. There's a program on the covertape called *Columbia* that does exactly that under AMSDOS.

Covertape clinic

Play it again, Sam

I've just been playing with the *AA110* covertape, and noticed a program called *ChaRleyTraCker Player* or some such name hidden away on it. What is it? What does it do? There was nothing about it in the magazine.

Also, I'm still having problems trying to get *Crossword Compiler* on to disc. Have you any suggestions?

Bruce Quiggin, Gateshead

ChaRleyTraCker Player is a utility to play .SNG files – music created with *Soundtrakker* or the full version of *ChaRleyTraCker* itself. There are hundreds of these in the public domain. Using the cursor keys, the main menu allows you to play a tune, to load one from disc, or to load one from tape. While a tune is playing, you can use function keys 1, 2 and 3 to adjust the volume of the three individual channels. You can also use the CPC as a simple keyboard (with function keys 8 and 5 to change instrument, and 9 and 6 to select the octave) if a tune is loaded but not currently playing.

We're working on *Crossword Compiler* – keep watching the covertape in the next few months. Sorry for any inconvenience.



He's right, you know! We're right ChaRleys! Did you TraCker it down?

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AA112: Covertape: *Titus the Fox, Megablaster Demo, Desktop Organise* (disc only). Inside: Public Domain – what it is and where you can get it. Plus: the top 50 PD titles of all time!
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